Oil, Paint and Drug Reporter

ANNIVERSARY SUPPLEMENT.

VOL. LI. No. 10. NEW YORK, MONDAY, MARCH 8, 1897. SUPPLEMENT.

WEBB'S ALCOHOL

THE ACKNOWLEDGED STANDARD

JAMES A. WEBB & SON, 165 Pearl St., New York.

1871--Twenty-five years of Prosperous Progress--1896

—THE—

Oil, Paint and Drug Reporter,

ESTABLISHED IN 1871,

Has since embraced the following publications, all of which were, at one time, prominent in the trade:

Drug Paint and Oil Trade, New York Drug Bulletin,
New York Druggists' Price Current,
Soap Makers' Journal, Oil and Paint Review,
and Weekly Drug News.

The REPORTER has from its earliest issues been the *acknowledged commercial authority* in the United States upon ***Oils, Paints, Drugs, Chemicals, and Dyestuffs.***

Its *Market Reports, Statistics and General News* matter cover every branch of these trades, and all of the articles of any commercial consequence which they comprehend.

Its completeness in these respects renders the weekly issues of the REPORTER of great value to the Manufacturers, Importers, Exporters, Distributors, and large Consumers of any of the articles included in the wide range of products which it represents.

Its Subscription Rate is $6.00 per annum to all parts in the United States and Canada, ***With a Discount of $2*** if paid strictly in advance.

To all other countries the rate is $6 per annum, in advance, which includes postage.

The REPORTER ***Circulates*** in every commercial country on the globe, and very fully covers the manufacturing, wholesale, distributing, and large consuming interests of the United States, while its foreign subscribers include most of the houses interested in importing from or exporting to the United States, any of the articles dealt in by the trades which it represents. It has, therefore,

NO EQUAL AS AN ADVERTISING MEDIUM.

Its advertising rates are reasonable for the service rendered, and will be promptly furnished upon application, by letter or otherwise, to the publisher,

WILLIAM O. ALLISON, 84 William St., New York.

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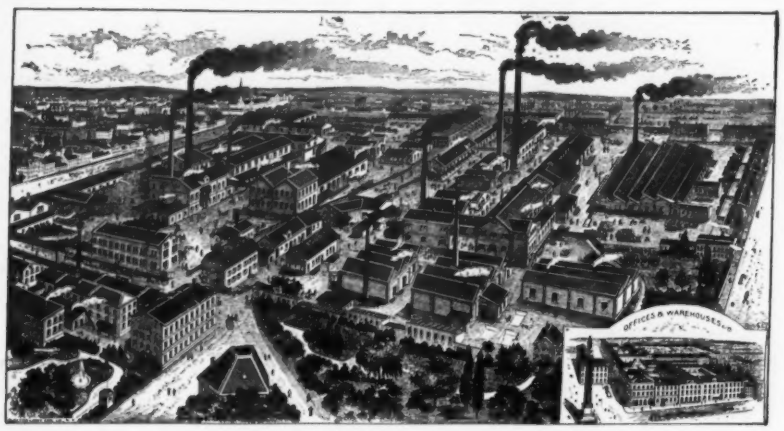
MERCK'S LABORATORIES AND WORKS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MERCK'S LABORATORIES & WORKS, FOUNDED IN THE YEAR 1668.
FINE CHEMICALS AND DRUGS FOR THE MATERIA MEDICA AND THE ARTS.
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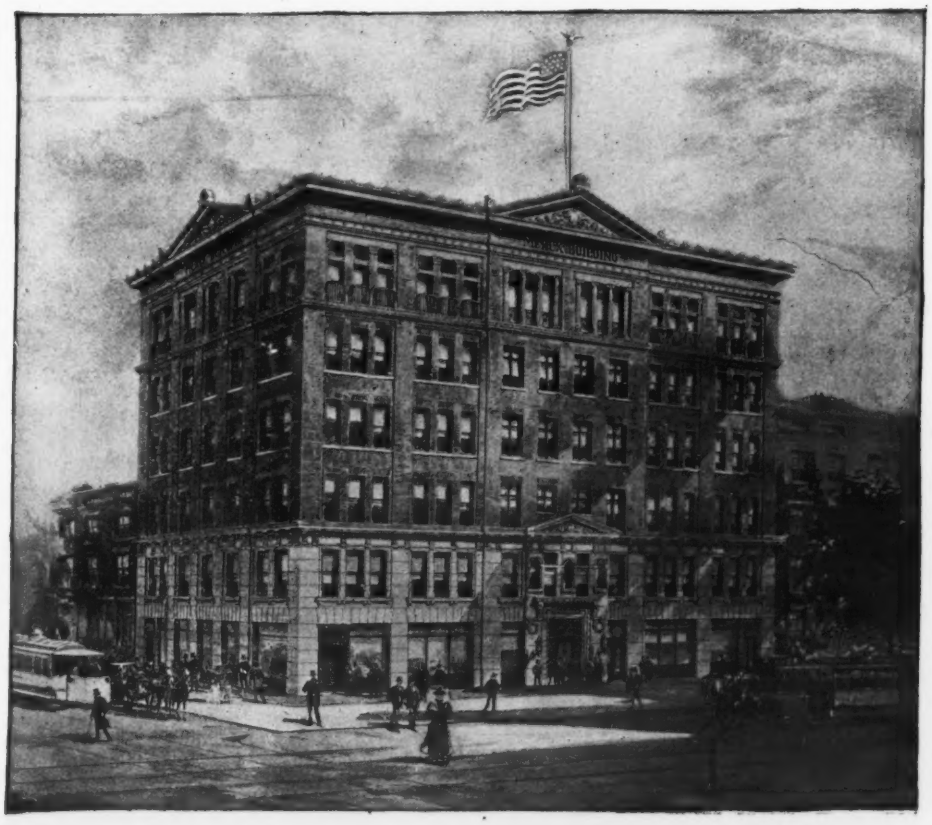

MERCK BUILDING

The First OIL, PAINT AND DRUG REPORTER (One-Quarter Size).

OIL, PAINT AND DRUG REPORTER.

A WEEKLY JOURNAL.

DEVOTED EXCLUSIVELY TO THE OIL, PAINT AND DRUG INTERESTS.

Vol. I—No. 1. WEDNESDAY, OCTOBER 18, 1871. Price per Year, $3.

The Oil Market.

TUESDAY EVENING.

ORDS—Linseed is in moderate/ly fair demand, the supply is full, and by some crushers there is a disposition shown to urge sales, the asking prices are 69@70c. in casks and 81@82c. in bbls. for jobbing lots, there are outside lots on the market which the holders are rather anxious to get rid of. Crude Whale and Sperm Oil during the past week have been dull, and sales unimportant, holders are very firm, and for South Sea and Humpback higher prices are demanded. Refined Whale have sold fairly to the usual jobbing way sales in New Bedford, 700 bbls Sperm for export at $1 25, 250 do for home use at 1 30, 300 Northern Whale and 100 Humpback on p. t. Seal Oil is firm, the lot of about 5,000 gallons held on the market for a long time past has finally been disposed of on p. t., and there is no Crude now in first hands, refined has met with more demand, and a sale of 3,000 gallons has been made at 70c. Lard Oil has been rather more inquired for, and oils, Winter pressed, have commanded better prices, even if a little off in color. Sales are 190 bbls. prime Winter at 95@96c., winter at the latter price, 30 bbls. No. 1 do. @ 97½c. Cold is more questionable, 60c. @ 70 bbls. Winter, off in color, at 82½c. 67 bbls. No. 2 Winter at 69@72½c., and 35 bbls. fair do. at 66c. Cotton Seed early last week was heavy at a decline, but later, with a large refiner coming in the market, and taking about 300 bbls., there was a reaction, and for Crude the close is again more steady, with a falling off in receipts, and the new oil from most sections likely to be three weeks behind last year. Southern Yellow is offered at the close with considerable freedom, both on spot and to arrive. White Summer is also offering at low prices. Sales are 113 bbls dark crude at 48c., 80 bbls not quite prime at 46c. 50 bbls fair at 48c., 60 bbls. prime at 49c., 30 bbls. half new, the first lot received this year, and a lot of 152 bbls. at 48c., and 35 bbls choice, at the close, at 49c., 60 bbls inferior Southern yellow at 43c., 85 bbls. crude at 46c., 100 bbls. prime, for export, at 48c., 50 do., a particular brand required, on p. t., reported at a higher price, refined—spring, 100 bbls. more at same price, 125 bbls. White Summer at 93c., 40 do., in bbls. at 82½c., 25 bbls Salad Oil at 95@97c., and 25 bbls White Summer at 90c. Benzine—Quite a many small lots arriving during the latter part of last week, reacted from the advanced prices, and some sales were made at a decline of fully 1c. per gallon; the close is, we think, rather more steady, with most of the arrivals bought up. Sales are 50 bbls prime White at 61½c., 113 bbls prime at 62c., 50 bbls at 62½c., 110 bbls at 63c., 61 bbls light at 61c., 185 bbls., on p. t., 150 bbls. fair at 60c., 80 prime at 67½c., 12 bbls. common at 60c., 50 bbls. Gerry at 60@62c., and 50 bbls. reprocessed choice at 63@64c., also 7,000 lbs. Resin, for export, at 45½c., and 300 tons Rosins at $12, delivered. In Cod Oil we note the arrival of the "Ennice" with 1,500 bbls., which has not been left in hand, as it was generally supposed by the trade it would be, until the Washington Treaty should be ratified, none of it has been sold as yet. There is a fair demand, and we note the sale of 90 bbls. Labrador at 58c., and 30 bbls domestic Cod, to arrive, at 56c. Red Oil has been in demand, a round lot of 200 bbls. expressible, has been disposed of on private terms. Neatsfoot is in fair demand, and the better grades rule firm in prices, 50 bbls. Pigebot sold at 67c. Bank and Straits are in good demand, though there is less doing than early last week. Red Oil is quoted steady for jobbing lots at 72c. per gallon for English, and 64c. for American. There has been some inquiry for Paraffine, but no sales reported, not as yet we learn of no sales, for home use 30 bbls Western, 38 gravity, sold at 35c. Repressed Tallow Oil is in fair jobbing demand. Castor Oil is held with confidence, but no large transactions are reported. Mowers. Baker & Hoy quote "A A." in bbls., at 19c., in cans, 20c.; Chrystal, in bbls., 20c., in cans, 20½c.; 75 cases sold on p. t. above the market. Olive sells fairly in a jobbing way at $1 20@1 30 for common to good, in t., 300 Northern Whale and 100 Humpback on p. t. Seal Oil is firm, the lot of about 5,000 gallons held on the market for a long time past has finally been disposed of on p. t., and there is no Crude now in first hands, refined has met with more demand, and a sale of 3,000 gallons has been made at 70c. 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Oil, Paint and Drug REPORTER.

Issued Every Wednesday.

PRICE PER YEAR, $3.

ADVERTISING RATES

One square per year $100 00
" time 5 00
Ten lines small type per year 25 00
" time 3 00

WILLIAM O. ALLISON, Proprietor, 79 and 81 William Street.

A FEW WORDS TO OUR PATRONS.

We have the pleasure of introducing to your notice to-day the first number of the OIL, PAINT AND DRUG REPORTER.

The request to some cannot be considered a fair specimen of what we intend to accomplish, as much valuable information which will be published regularly hereafter has been necessarily omitted on account of certain unavoidable delays in the completion of our arrangements. It was our first purpose in entering our attention chiefly to oils, but their intimate, indeed, almost inseparable connection with drugs, paints and chemicals also decided us to make our paper a complete weekly record of these associate branches of trade.

The interests we propose to represent, although of vast importance, comprising articles which most invariably be used by every person in the land, and embracing an immense amount of capital, have been scarcely noticed by the daily or weekly press, not excepting those papers especially devoted to commercial affairs. We are confident that they need, and can well sustain a paper devoted exclusively to their own interests, for when immense sums of money are invested, and yet when this market fluctuates and prices vary on frequently, so accurate, thorough, and discriminating a record of its operations should be kept, as seller in the business. One new feature connected with our paper we desire to call especial attention to, namely, a list of shipments of chemicals from Liverpool to this market by sailing vessels, with the trade marks, enabling our subscribers to inform themselves several weeks in advance of the principal chemicals on the way, their quality, and in some cases, their consignees.

The size of our paper was decided by the matter it was to contain. It will be enlarged from time to time, as the necessity may arise, for we are determined to furnish the trade with a satisfactory weekly journal, containing all the information which such a journal should contain, alive to every new idea, and in the best sense of the word progressive.

THE CHICAGO FIRE.

The absorbing topic during the past ten days has been the Chicago fire. The losses, though immense, were at first greatly exaggerated, and reports almost daily reduce the amounts. It is still impossible to get any accurate account, and will be for some time yet. The effect on the oil, paint and drug trade has not been very marked, there was being enough stock burnt to produce any very great feeling. The advanced rates for money making commercial paper difficult to sell has been felt, perhaps, more than anything else, making those who carried large stocks show more inclination to sell rather than pay the higher rates of interest. The prospects are, that there will be shortly a better demand than ever from that city. Already many firms who were burnt out have sent orders for goods with hopeful circulars, giving their new places of business.

COTTON SEED OIL—SOUTHERN REPORTS.

Reports from the various Southern mills say that seed is coming in very slowly, that there is no possibility of their starting on the new crop till about the first of next month, which will be some three weeks later than last year. The stock of old has been about all shipped North, and many of the crushers are idle; the claim that present prices are unremunerative, and are confident that there will be a reaction, many that have stopped say they will not resume unless better prices can be obtained.

THE PETROLEUM PRODUCTION FOR SEPTEMBER.

The report of the production of Petroleum for September, received yesterday, was seven days behind the usual date at which the monthly report on this subject appears. We refer to the report of the Titusville *Courier* and that of the *Herald*. The producers official report appeared a week ago; but as the producers are the most deeply "interested parties" in this matter, their report —whether justly or unjustly we do not pretend to decide—is not deemed by the trade generally to be sufficiently impartial to warrant its acceptance as a basis of calculation for any parties accepting them who issue it.* All petroleum dealers, therefore, excepting the producers, await the appearance of the "official" report of the Titusville *Herald* or *Courier* previous to forming any opinion upon the monthly production, and the reason why these reports were delayed, in the September and October production, a week beyond the usual time, was because each had no little confidence that his figures were accurate, that neither journal dared to publish its report until after it had passed an additional week's examination. The result, now that the official reports, is the same as it has been monthly for nearly a year past, namely, a disagreement concerning the figures which ascribe a most vastly absolute influence upon the Petroleum markets than any other figures connected with the trade. The *Herald* gives the production for September at 17,040 barrels per day, and the decrease in the stocks at 46,598 barrels for the month. The *Courier* gives the production at 16,750 barrels daily, with a decrease per day of 1,046 barrels below the August production, and a decrease of stock for the month of 32,614 barrels. One readers may put their faith in whichever report they please, though many of the best informed in the trade are inclined to the statement of the *Courier*. As regards the tendency of these two last reports, they both favor the bulls. In future we however, we trust that some means will be the means to become more nearly correct as to the facts concerning production and stocks than they have been for a year or so, for in proportion to their accuracy are the reports valuable to the trade.

DOMESTIC RECEIPTS.

From New Orleans—41 bbls C B Oil, J Sugar & Co; 46 do do, Wm Frost; 1 do do, Wm Frost & Co; From Norfolk—10 bbls do, Warren Chemical Manufacturing Co; From Boston—1 bbl Oil, Order; 1 do do, W H Whitney; From Fall River—1 bbl do, Order; 1 do do, Order; 1 do do, Order; 1 do do, C T Dowdney; 10 bbls Lard Oil, No 1 winter, 5 do do, 5 do do, Order; From Philadelphia—1 bbl Oil, Jewett, H & Co; From Providence—1 bbl do, Order; From Chicago—1 bbl do, Wallace Tobacco Co; From Cleveland—1 bbl do, Order; From Toledo—1 bbl do, Order; From Detroit—1 bbl do, Order; From Milwaukee—1 bbl do, Order; From Oswego—1 bbl Rosemary, Power, Bro & Co; From Albany—1 bbl Oil, Order; From Troy—1 bbl do, Order; From Hudson—1 bbl do, Order; From Rochester—1 bbl do, Order; From Buffalo—1 bbl do, Order; From Cincinnati—1 bbl do, Order; From Pittsburgh—1 bbl do, Order; From Wheeling—1 bbl do, Order; From Parkersburg—1 bbl do, Order; From Cleveland—1 bbl do, Order; From Toledo—1 bbl do, Order; From Detroit—1 bbl do, Order; From Milwaukee—1 bbl do, Order; From Oswego—1 bbl Rosemary, Power, Bro & Co; From Albany—1 bbl Oil, Order; From Troy—1 bbl do, Order; From Hudson—1 bbl do, Order; From Rochester—1 bbl do, Order; From Buffalo—1 bbl do, Order; From Cincinnati—1 bbl do, Order; From Pittsburgh—1 bbl do, Order; From Wheeling—1 bbl do, Order; From Parkersburg—1 bbl do, Order.

CHEMICALS TO ARRIVE FROM LIVERPOOL, BY SAILS.

The following is a complete list of chemicals entered at the custom house at Liverpool, for the United States, per sailing vessels, for the week ending Sept. 27, with the shipper's name and marks:

To New York—By Hutchinson & Co, per C H Marshall, 34 tons, 15 casks ash, marked S, diamond P H over C, per Jessore, 94 tons 10 cwt do, marked B B, by Pusey & Co, per W Tapscott, 12 tons 4 cwt 1 qr bleach, marked L. F., per Emerald Isle, 11 tons 3 cwt 3 qrs soda, marked ——, 18 tons 18 cwt 3 qrs ash, no mark; by Kurtz, per Wm Tapscott, 50 tons do., marked R, by McQuier & Sons, per Jessore, 49 tons 8 cwt bleach, marked R, diamond D C, per Neptune, 61 tons 9 cwt ash, marked diamond WB, per Arlgbon, 19 tons 8 cwt bleach, marked diamond D C, by Mongrell & Sons, 9 tons do, marked diamond R over S M, per E McNeil, 15 tons do, marked diamond F, 27 tons ash, marked T, 78 tons do, marked M, 50 tons do, marked diamond C, by McCulloch, per Jessore, 30 tons 2 cwts caustic, marked T over C.

Were delayed, in By Rusurers Co, per C H Soule, 67 pkgs ash, marked diamond W H, and P, 30 marked diamond W B, 40 marked diamond W F C, 43 marked diamond W F, and 26 tons bleach marked diamond W, by McQuier & Sons, per Joseph Paris, 32 tons 3 cwt bleach, marked diamond S, and M, per J. S. Jackson, 17 tons 14 cwt bleach, marked H S.

To Philadelphia—By Sarcers Co, per Republic, 80 tons ash, marked W C and S, and P over W C and S. By Kurtz, per Devonshire, 56 tons ash, marked C, per F M. Harbert, 54 tons do marked G, 27 tons do, marked B F. By J. G. Gamble & Son, per F H Armstrong, 39 tons do, marked C, by McQuier & Sons, per Britannia, 74 tons 10 cwt do, marked diamond M, with a C on the right, 80 tons 11 cwt do, marked C and B, 97 tons 10 cwt bleach, marked M over M, 25 tons 4 cwt ash, marked diamond S, per Persia, 60 tons 5 cwt do, marked C and S, per Hypatia, 23 tons 3 cwt do, marked M, over diamond C, per Rel Stuart, 25 tons 11 cwt do, marked diamond S. By T. H. Wainwright, per Florida, 30 drums caustic, marked with a diamond, Quin & Sons, per Devonshire, 30 tons 10 cwt ash, marked B S, per Florida, 46 tons 8 qrs do, marked P over

To Baltimore—By Kurtz, per Sea Gem, 1 tons ash, marked R, by McQuier & Sons, 27 tons do, marked R.

To New Orleans—By Mongrell Bros, per Jessore, 10 tons bleach, marked S over B.

To San Francisco—By A Balmain & Co, per Candidate, 100 kegs bi carb, marked Diamond G, 70 drums caustic, 100 kegs bi carb, no marks, and by Mongrell Bros 100 kegs do, marked G over diamond B C.

EXPORTATIONS.

The following will show the importations of oils, paints and drugs during the past week:

OILS.

From Hamburg—20 casks train oil, 5 do Castor, 1 do Lard, from Liverpool—2 casks oil, From Bombay and Aleppy—230 bbls oil, D. H. Wilson & Co. From Leghorn—300 bbls olive oil, order.

PAINTS.

From London—308 pkgs white lead C. T. Reynolds & Co., 50 do paint, Edward Hill, 79 casks Paris white, C. T. Reynolds & Co., Liverpool—4 casks paints, 4 do colors, 1 box do, J. C. Walker & Co., 23 casks colors, C. T. Reynolds & Co., 5 casks, 5 do varnish, Brown & Sharpe, 1 do, Wm Wharton, Jr. & Co., 1 do, Jas. Wilson, 1 do, Order, 1 do, Jas. Wilson, 1 do, Order, 1 do, Jas. Wilson, 1 do, Order,

ESTABLISHED 1869

THE

Grasselli Chemical Company

Cleveland New York St. Louis Cincinnati

Sulphuric Acid Muriatic Acid

Nitric Acid Sal Soda

Hypo-sulphite of Soda Aqua Ammonia

Blue Vitriol, Refined Salt Cake for Glass Makers

Glauber's Salt—Prime

Sulphide of Sodium Bi-sulphite of Soda

Manufacturers of Chemically Pure Distilled 1,200 Sp. Gr.

GLYCERIN

Also Glycerin for Nitro-Glycerin and Other Purposes

MIXED ACID FOR NITRO-GLYCERIN

New York Office, 63-65 Wall Street

OUR ANNIVERSARY SPECIAL.

The present issue of the Oil, Paint and Drug Reporter, although supplemental to the regular number of corresponding date, is intended as a special, commemorative of the twenty-fifth birthday of the paper. While this anniversary occurred in October last, the completion of the fiftieth volume in December, 1896, was deemed the fitting occasion to celebrate, and the publication of this special anniversary number was projected to follow as closely upon the last issue for 1896 as the compilation of statistical matter for that year would permit. There has been a little more delay than we had anticipated in the receipt of statistical matter specially prepared for us at Washington, but we trust that the completeness of this paper will prove sufficient excuse for any lack of promptness in its publication.

1871—1896.

On the eighteenth of October, 1871, the present publisher of the Oil, Paint and Drug Reporter issued the first number of the publication, for which his experience as a reporter upon other commercial papers led him to believe there was room. The trades to which he thus appealed for support were not wholly unrepresented in the market reports of the day, and some of them even had their special journals, but the systems of market reporting then in vogue did not furnish such comprehensive information as seemed to him satisfactory to persons who were interested in knowing actual commercial conditions, and must depend in no small measure for such knowledge upon public reports. In the salutatory which appeared in the first issue of the paper, the aims of the new publication were thus stated:

It was our first purpose to confine our attention chiefly to Oils, but their ultimate, indeed almost inseparable, connection with Drugs, Paints, and Chemicals has decided us to make our paper a complete weekly record of these associate branches of trade.

We are confident that they need and can well sustain a paper devoted exclusively to their own interests, for when immense sums of money are invested, and this market fluctuates and prices vary so frequently, a discriminating report is indispensable to every buyer and seller in the business. The size of our paper was fixed by the matter it was to contain. It will be enlarged from time to time, as the necessity may arise, for we are determined to furnish the trade with a satisfactory weekly journal containing all the information which such a journal should contain, alive to every new idea, and in the best sense of the word progressive.

How fully the determination expressed in the last paragraph quoted above has been fulfilled the readers of this paper will decide according to their own views; but the publisher can conscientiously assert, at least, that at no time has his original purpose changed, and, with the exception of brief and infrequent intervals, when he has intrusted the active management to other hands, at no time has he ceased his personal efforts to make the Reporter realize his own conceptions of what a trade journal should be, and the expectations which his earlier and repeated promises to its friends justifies their entertaining.

In addition to the very cordial words of encouragement which were accorded the young publisher by most of those in the trade to whom he confided his plans, the first issue contained the evidences of material support, in the form of advertisements from the following firms, most of whom, as will be seen, were connected with the oil trade:

Thomas Rowe & Sons, linseed oil, 181 Front street.

Libby & Clark, paraffine and lard oils and other lubricants, 118 and 120 Maiden lane.

William J. Bower & Co., brokers, 55 William street.

Alden S. Swan, sumac and gambier, 16 and 18 Rose street.

New York Oil Company, cottonseed oil and soaps, 42 Cedar street.

Fowler, Crampton & Co., Nassau Linseed Oil Mills, Nassau Flint Glass Works, and importers of drugs and chemicals, 142 and 144 Front street.

F. LB. Mayhew & Co. (successors to C. H. Leonard and Lyles & Polhemus), oils and candles, 140 Front street.

E. T. Milliken & Co., fish, lard and cottonseed oils, 139 Maiden lane.

I. & C. Moore, manufacturers of linseed oil and dealers in cottonseed oil and cake, 182 Pearl street.

Campbell & Thayer, linseed crushers, 89 Maiden lane.

Hastings & Co., sperm and whale oils, 154 Front street.

William Chrisfield & Son, drug brokers, 52 Cedar street.

Lacy & Randall, merchandise brokers, 71 Wall street.

Austin M. Knight, fish oils, gambier and degras, 83 Gold street.

Frazer Lubricator Company, axle grease, 104 Maiden lane.

Williams & Rickerson, salt hay for packing, foot of Harrison street.

Candor compels the statement that three or four financial or general advertisements, lifted from the forms of another journal issued from the same printing office, were also inserted, to fill up space not otherwise provided for at the time of going to press. But an increase of business left but one of these deadheads in the second isue, and, while one or two appeared spasmodically during the next few months, necessity for their use had disappeared before the close of the first year, although the size of the paper had twice been increased during that period, and it is a satisfaction to state that at no subsequent period was it found necessary to employ them.

The first enlargement of the paper was with its twelfth issue, on Jan. 3, 1872, the second occurring six months later. On Feb. 13, 1873, there was a further increase in the size of page, and on Sept. 10 of the same year, or less than two years from the date of the first issue, the size was again increased to that of a veritable "blanket sheet," which more than doubled the space contained in the first issue. On July 1, 1874, this was in turn doubled by making the paper eight pages instead of four, and the necessity for further enlargement early in 1875 led to a change of form to the original size of page, but with an increase to 20 pages. From that time on there has been no change in the form, but the number of pages has varied according to demands upon our space, the variations affording a fair gauge of general commercial conditions, in so far as they affect the trade to which the paper is related.

During its existence the Reporter has afforded a final refuge for several more or less successful ventures in journalism designed by enterprising publishers to fill what they believed to be long felt wants in these trades. Some of these publications ante-dated the Reporter itself, but as they in every case found themselves incapable of filling the want, or else its length was more conspicuous than its depth, they retired one by one, and the Reporter added to its subscription lists whatever circulation they had acquired by any special merit, and to its various departments such features as were necessary to maintain that circulation and expand it.

It is a matter which inspires the publisher of the Reporter with pride no less than with a grateful pleasure that its subscription list for the year 1897 shows many of the names which were enrolled upon the list for 1871, and retains a large share of those which have been added in each succeeding year. The erasures from the lists mean time have been chiefly of the names of those who no longer retained an interest in these trades. Not a few have retired on well-earned competencies, or sought other fields of activity; some have been overtaken by the vicissitudes of commercial life, and have left the field to those whom fortune better favored; and many more have joined that ever increasing majority to which every quarter-century must contribute its generous quota. To all of these—to the living whether still in the prime of life, or verging into the "seer and yellow leaf;" whether in the enjoyment of affluent prosperity, or weighted by the burdens of misfortune; and to the dead who rest from their labors, but yet live in the memories of those who survive and view their works that follow them—to all of these, the Reporter seeks at this anniversary to record its tribute by such historical review of the term of its existence as shall fitly recognize the chief commercial events of that period and the personalities inseparably connected with them.

The emptiness of the oft-repeated expression that a given number of years is a long period to look forward to, but "seems like yesterday," when looked back upon, is clearly shown when one undertakes to review in detail the events which it has compassed. From its first issue down to the close of its fiftieth volume there have been published 1312 regular weekly numbers of the Reporter, besides several special issues, devoted to the proceedings of conventions of its trades. An attempt to review the most salient features of the contents of those numbers recalls very forcibly the length of years and the remoteness of the many "yesterdays" which the memory so lightly recalls. The gradual building up of great enterprises, the development of scientific and industrial progress, and the marked changes that have occurred in different branches of the trade, have all been marked by events which have kept the time well filled up, and left no weeks unaccounted for.

Perhaps nothing will more vividly recall to the minds of those who were in trade in the early seventies, the events of that time, than a call of the roll of names which were printed in the Business Directory of 1871, as the representative houses in oils, paints, drugs, chemicals and dyestuffs. We therefore reproduce this roll herewith, and while we have supplied some deficiencies which we recognized, further imperfections will doubtless be manifest to some of our readers who were widely acquainted in those trades at that time. The younger generation of Reporter readers, to whom the events of a past which is not compassed by their own personal experience must be as unreal as the future is unknown, will find in this list of names some of which they have scarce heard, and many more which are simple traditions. Many of the firms, with but little change of personnel have experienced radical changes of name, while others retain their old name, but with so complete a change of makeup that their identity would be lost to many of their earlier contemporaries. The lists are as follows:

DRUGS, CHEMICALS AND DYESTUFFS. 1871.

Arnold & McNarry, 45 Park place.
Aspinwall, Jas. S., 86 William st.
Abecasis, Marco, 41 Beaver st.
Arnson & Wilzinski, 12 Cedar st.
Barkley, Wm., & Co., 34 Cortlandt st.
Brinckerhoff, V. W., 1 College place.
Blackler, Wm. H., 62 William st.
Bronson, T. A., & Co., 42 Cedar st.
Browne, Wm. E., & Co., 22 Cedar st.
Burt, Arthur W., 24 Cedar st.
Buswell & St. John, 76 William st.
Bachman, Renatus, 66 Beekman st.
Battelle & Renwick, 163 Front st.
Binns, Geo., 5 Gold st.
Boardman, G. M., 24 Barclay st.
Brandeis, Julius, 49 Cedar st.
Barretto, Francis J., 64 Beaver st.
Beyerbach & Schultz, 22 Liberty st.
Breithaupt & Wilson, 46 Park place.
Bloomfield, J. C., & Co., 11 Dey st.
Bull, B. W., 44 Cedar st.
Carle & Strong, 153 Water st.
Coolidge & Adams, 108 John st.
Cooper, Chas., & Co., 150 Chatham square.
Crawford, G. S., & Co., 119 Fulton st.
Crittenton, Chas. S., 7 Sixth ave.
Chrisfield, Wm., & Son, 52 Cedar st.
Cowperthwaite, Montgomery B., 5 William st.
Cummins, T. K., & Co., 61 William st.
Day, Hoagland & Stiger, 54 Cortlandt st.
Dudley & Stafford, 69 Beekman st.
Dandria, J. N., 60 William st.
Daniell & Cooke, 58 Cedar st.
Davis, Wolt & Co., 58 Pine st.
Despard, Arthur W., 42 Cedar st.
Dobbs, Jas. H., 99 Maiden lane.
Downer & Coffin, 44 Cedar st.
Darley, Jno., & Co., 161 William st.
Dodge & Olcott, 88 William st.
De Cordova, F. G., & Co., 62 William st.
Dickinson, E. J., & Co., 71 Maiden lane.
Dix & Morris, 48 Cedar st.
Durkee, E. R., & Co., 135 Water st.
Elmer & Amend, 205 Third ave.
Eames, Chas. J., 26 Pine st.
Edrehi, Isaac D., 50 New Bowery.
Erkhardt & Alexander, 181 Pearl st.
Erckenbrech, Geo. A., 18 Liberty st.
Everett, Henry W., 54 Pine st.
Fougera, E., & Co., 30 N. William st.
Fraser & Lee, 20 Beekman st.
Fowler & Bell, 56 Pine st.
Fisher, Francis, 66 Pine st.
Foye, Johnston E., 96 Reed st.
Farr, Jas. M., 60 Cedar st.
Farwell, D. G., 683 Broadway.
Feuchtwanger, L. & J. J. W., 55 Cedar st.
Fisher & Keller, 46 Cedar st.
Field, C. de P., & Co., 127 Water st.
Fowler, Crampton & Co., 142 Front st.
Gulager, Frank, 90 William st.
Green, Francis W., 48 Broad st.
Gifford, Sherman & Innis, 120 William st.
Green, C. S., 197 Pearl st.
Gridley & Coffin, 78 William st.
Griswold, M. W., & Co., 104 Chambers st.
Hall & Blauvelt, 50 Cortlandt st.
Hall & Ruckel, 218 Greenwich st.
Hallett, Seaver & Burbank, 149 Chambers st.
Hartung, Jas., 5 Gold st.
Hepburn, Neil J., 51 Eighth ave.
Hostetter, Coffin & Co., 85 Liberty st.
Hoyt & Blanchard, 203 Greenwich st.
Hurlbut & Edsall, 78 William st.
Harding, Henry M., 63 Beaver st.
Hawkins, Wm. F., 78 Wall st.
Harrison Bros. & Co., 16 Burling slip.
Hecking, Fred H., 370 Pearl st.
Hurtt, F. W., & Bro., 76 William st.
Halsey, Wm., & Co., 182 Water st.
Harway, Jas. L., & Co., 161 Water st.
Holliday, Read Sons, 74 Pine st.
Horner, Jas. B., & Co., 88 William st.
Horsey's, Jas., & Son, 21 Platt st.
Hyde, Jas. E., 9 Gold st.
Haydock & Stabler, 78 William st.
Henning, Henry W., 46 Cedar st.
Herbert, Julius C., 42 Cedar st.
Hubbard, G. W., & Co., 57 Pine st.
Humphries, Francis, 17 Cedar st.
Hill, Edward.
Hillier, R., & Son, 58 Cedar st.
Isaacs, A. & Co., 58 Cedar st.
Jadwin, Orlando H., 53 Cortlandt st.
Jackson, Henry, 221 Pearl st.
Jacoby, George, 103 Maiden lane.
Gordon, Wm. P., 56 Pine st.
Jungbluth, Julius, 22 South William st.
Keith, Bethuel & Co., 41 Liberty st.
Kidder & Wetherill, 57 John st.
Kalbefliesch's, Martin, Sons, 55 Fulton st.
Krockowizer & Harnish, 113 Water st.
Kraft, Charles H., 18 Exchange place.
Keppelmann, Adolphus, 168 Fulton st.
Klingsoehr, Victor & Co., 57 Cedar st.
Kuttroff, Adolphus, 40 Cortlandt st.
Karstens, Hugh H., 58 Cedar st.
Kent, H. A., Jr., 97 Maiden lane.
Kahl, John L., 69 William st.
Lanman & Kemp, 68 William st.
Lazell, Marsh & Gardiner, 10 Gold st.
Lauer, John E., 55 Fulton st.
Lee, Jas., & Co., 72 Pine st.
Luhme, F. J., & Co., 4 Murray st.
Lamson, George W., 61 Cedar st.
Leeds, Edward A., 157 Maiden lane.
Lawrence, E. N., & J. B., Jr., 172 Pearl st.
Lauer, Richar, 52 Cedar st.
Longhurst, James S., 54 Cedar st.
McDonald, R. H., & Co., 32 Commerce st.
McKeachine & Rupert, 90 William st.
McKesson & Robbins, 91 Fulton st.
Matthews, A. I., & Co., 12 Gold st.
Monell & Titsworth, 52 Dey st.
Morgan, James A., 198 Greenwich st.
Morgan & Allen, 46 Cliff st.
Morgan & Risley, 81 Warren st.
Mulford & Conway, 53 Cedar st.
McGown, Thomas W., 18 Liberty st.
Morgan, James L., & Co., 47 Fulton st.
Merrick, T. B., & Co., 25 Cedar st.
Merrill, S. D., & Co., 53 Cedar st.
Miniszek, James H., 72 William st.
N. Y. Drug & Chemical Co., 52 Vesey st.
Nichols, Francis B., 71 William st.
Paine Bros., 58 Maiden lane.
Palanca, Ramon, 107 Pearl st.
Pinchot, Bruen & Hobart, 214 Fulton st.
Pennington, J. C., & W., 5 William st.
Pfizer, Charles, & Co., 17 Beekman st.
Powers & Weightman, 56 Maiden lane.
Pokorny, Louis, 7 Burling slip.
Parsons & Petit, 59 Beaver st.
Reed, Carnrick & Andrus, 122 Liberty st.
Richter, Herman, 53 Cedar st.
Robinson, R. W., & Sons, 184 Greenwich st.
Robbins, Marshall & Co., 163 Broadway.
Rosengarten & Sons, 58 Maiden lane.
Riker, J. L. & D. S., 45 Cedar st.
Ripke, Edwards, 4 Hanover st.
Rose, W. A., 56 Pine st.
Rumpff & Lutz, 42 Beaver st.
Recknagel & Co., 46 Cedar st.
Reed & Co., 54 Cedar st.
Rudkin, Wm., 74 William st.
Rudolphy, John, 176 William st.
Robbins & Deshon, 97 William st.
Stephens, Philetus, 91 Liberty st.
Sands, A. B., & Co., 141 William st.
Southwick, George Wm., 36 Vesey st.
Schmidt, Gotlieb F., 181 Pearl st.
Schneider, Bell & Co., 40 Fulton st.
Seely, Charles A., 26 Pine st.
Sperer, Edward, 68 Broadway.
Squire, Alfred L., 76 William st.
Squire, Newton, 99 Maiden lane.
Salomon, Louis A., 2½ Cedar st.
Schering & Glatz, 84 William st.
Schieffelin, W. H., & Co., 170 William st.
Schieffelin, B., 59 Cedar st.
Southerland, J. P., & Son, 55 Pine st.
Stabler, Francis, 20 Cedar st.
Stallman & Fulton, 26 Cedar st.
Stuart, James E., 74 William st.
Tarrant & Co., 278 Greenwich st.
Townsend & Plumer, 193 Greenwich st.
Trippe, Jos. E., & Sons, 71 Warren st.
Truex, Edward H., 3 Platt st.
Townsend, Sylvanus S., 31 Liberty st.
Townsend & Whitmarsh, 56 Pine st.
Tilden & Co., 176 William st.
Trippell, Alex., 18 Exchange place.
Thurman, Washington M., 428 Canal st.
Taft & Tyler, 54 Cedar st.
Taft, Lee & Co., 62 William st.
Tyler, Henry E., 12 Gold st.
Underhill & Miller, 183 Water st.
Vantuyl & Co., 37 Jeff st.
Van Duzer, S. R., & Co., 35 Barclay st.
Ward, M., & Co., 130 William st.
Wells, James C., & Co., 139 William st.
Wheeler, Patterson & Co., 158 William st.
White, Charles T., & Co., 54 Maiden lane.
Wurtz, Henry, 26 Pine st.
Weaver & Sterry, 24 Cedar st.
Wheeler, Walter G. I., 25 New Chambers st.
Witte, M. C. G., & Co., 94 John st.
Waterbury, Albert G., 145 Water st.
Webster, W. E., & Co., 44 Cedar st.
Williams, S. R., 60 William st.
Wing & Evans, 74 Beaver st.

PAINTS.

Ansbacher, A. B., 15 John st.
Anderson, Pierce & Co., 174 Fulton st.
Averill Chemical Paint Co., 32 Burling slip.
Andoe, Wm., 113 Maiden lane.
Banker, Geo. W., 129 Maiden lane.
Baxter, Bell & Co., 220 Pearl st.
Bidwell, Daniel, 254 Pearl st.
Bogert, Peter, & Co., 14 Cortlandt st.
Bowman, O. O., & Co., 47 Dey st.
Brooklyn White Lead Paint Co., 89 Maiden lane.
Budd, Jno. J., 149 Bank st.
Christal Bros., 240 Pearl st.
Close, Wm. J., & Co., 5 Chatham square.
Colgate, Robert, & Co., 287 Pearl st.
Curtiss, Russell F., & Co., 115 Liberty st.
Devoe, F. W., & Co., 117 Fulton st.
Haineman & Stiner, 89 Fulton st.
Hall, Bradley & Co., 181 Water st.
Hobbs & Hebberd, 115 Fulton st.
Jessup & Childs, 225 Pearl st.
Jewett, John, & Sons, 182 Front st.
Keys, Alfred D., 75 Maiden lane.
Kohnstamm, H., 100 Chambers st.
Lyle, Jabe M., 91 Liberty st.
Leggett, F. W. & G. F., 301 Pearl.
Lehigh Metallic Paint Works, 214 Pearl st.
Mackintosh, Daniel, 17 Cedar st.
Masury, John W., Fulton st.
Metzler, Chas., 304 Pearl st.
McDonagh, Wm., & Co., 180 Front st.
Mandeville, Jno. J., 221 Pearl st.
Marcus Bros. & Co., 321 Pearl st.
Mayer, Robt., & Co., 54 John st.
Ridner, Jno. P., 97 William st.
Raynolds, C. T., & Co., 106 Fulton st.
Rocky Mountain Paint Co., 110 John st.
Schoonamaker, Sam'l A., 189 Chatham square.
Seeley & Stevens, 32 Burling slip.
Sharpe, Rob't D., 214 Pearl st.
Siebold, H., & Co., 24 Liberty st.
Sloan, Dan'l, & Co., 109 W. Broadway.
Smith, J. Lee, & Co., 276 Pearl st.
Toch Bros., 35 Bowery.
Todd, Geo. W., 64 Dey st.
Tuers & Cooper, 81 Maiden lane.
Thornhill & Co., 194 Front st.
Tiemann & Co., D. F., 16 Park place.
Union White Lead Mfg. Co., 26 Bowling Slip.
Vandewenter, Jno., & Son, 232 Greenwich st.
Wadsworth Bros. & Co., 207 Pearl st.
Walter & Fielding, 218 Pearl st.

THE ROESSLER & HASSLACHER

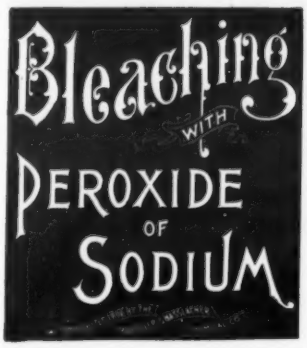
CHEMICAL COMPANY

Manufacturing and Importing Chemists

FACTORIES: Perth Amboy, N. J. / Niagara Falls, N. Y. (Niagara Electro Chemical Co.)

BRANCHES: Chicago, 56 Fifth Avenue. / Boston, 103 Milk Street.

SEND FOR PAMPHLET ON:



which proves the superiority of the chemical for bleaching Silk, Wool, Cotton, Hemp, Jute, Flax, Ramie, Straw, Chip Wood, Feathers, Bone, Sponge, etc. For these purposes large quantities are manufactured by the

NIAGARA ELECTRO CHEMICAL CO.

AT NIAGARA FALLS, N. Y.

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QUININE SALTS

THE ROESSLER & HASSLACHER CHEMICAL COMPANY · CHEMISTS · NEW YORK

TRADE-MARK.

Bleaching Powder, "Electron"
Caustic Potash
Chloride of Zinc
Hyposulphite of Soda
Oxalic Acid
Sal Ammoniac
Yellow Prussiate of Potash

THE ROESSLER & HASSLACHER CHEMICAL COMPANY · CHEMISTS · NEW YORK

TRADE-MARK.

CHAS. PFIZER & CO.

NEW YORK

MANUFACTURERS OF

CREAM TARTAR, Crystals and Powdered, 99%-100%.

TARTARIC ACID, Crystals and Powdered.

CITRIC ACID, Crystals, Granulated and Powdered.

BORACIC ACID, Crystals, Granulated and Powdered.

BORAX, Refined Crystals and Powdered.

Rochelle Salts,
Iodoform, Powd. and Cryst.,
Mercurial Preparations,
Bismuth, Subnitrate,
Refined Camphor,
Potassium Iodide,
Strychnia,
Bismuth, Subcarbonate,
Iodine Resublimed,
Tannin, Cryst. and Powd
Chloroform,
Bismuth, Subgallate.

ALSO A GENERAL LINE OF PHARMACEUTICAL CHEMICALS.

Webb, McLaughlin & Co., 60 Beekman st.
Wertheimer, Lewis E., 104 William st.
Whiting, J. C., & Co., 193 Pearl st.
Wicks & Elmendorf, 161 William st.
Wix, Henry, 26 Liberty st.
Woodbury, Isaiah, 39 Broadway.
Weddle, Thos., & Co., 99 Maiden lane.
Welles & Breinig, 166 Chambers st.
Zinsser & Co., Wm., 197 William st.

OILS.

Arctic Oil Co., 49 Dey st.
Archer & Close, 230 Washington st.
Ackerman, Peter, 116 John st.
Allen Wright Oil Co., 10 Pine st.
Baker, H. J., & Bro., 215 Pearl st.
Baker, S. T., & Co., 257 Front st.
Barker, Jos. D., 148 Front st.
Barrow, Henry, & Co., 146 Front st.
Browne, Wm. B., 93 Maiden lane.
Burke, Russel W., 181 Pearl st.
Babcock, Wm. V., & Co., 365 Pearl st.
Bingham & Co., 60 Frankfort st.
Bostwick & Tilford, 6 Hanover st.
Brown, Francis, & Son, 139 Front st.
Beling, Niemeyer & Enell, 62 Beaver st.
Blood Farm Petroleum Co., 8 Pine st.
Bostwick, Andrew W., 62 William st.
Bower, Wm. J., & Co., 55 William st.
Bunker, A. G., 4 Hanover st.
Collymore, Rob't, 47 Exchange place.
Carman, B. T., & Co., 140 Maiden lane.
Curtis & Crowell, 154 Pearl st.
Carrington Bros., 226 Pearl st.
Cuthber & Cunningham, 36 Burling slip.
Chard & Howe, 134 Maiden lane.
Chesebrough, Robt. A., 66 Wall st.
Clinton Oil Co., 109 W. Broadway.
Colvin, Andrew M., 130 Maiden lane.
Colgate, R., & Co., 287 Pearl st.
Cook; Nehemiah B., 145 Maiden lane.
Corey, G. W., & Co., 172 Washington st.
Cullen, King & McGoey, 143 Maiden lane.
Cooke Bros. & McCord, 504 West 38th st.
Campbell & Thayer, 89 Maiden lane.
Clark, Wedworth W., & Co., 10 Pine st.
Cooke, Wm., 143 Maiden lane.
Cory & Co., 97 Maiden lane.
Cady, Daniel H., 32 Pine st.
Dare, Wm. H., 163 South st.
Denslow & Bush, 132 Maiden lane.
Derby & Co., 105 John st.
Donald, J., & Co., 124 Maiden lane.
Dorr, Albert H., 352 Greenwich st.
Downer, A. H., 129 Maiden lane.
Downer Kerosene Oil Co., 113 Maiden lane.
Deforest, Wm. T., 115 Maiden lane.
Dorr, J. A.'s, Son, 339 Greenwich st.
Day & Co., 204 Pearl st.
DeCordova, Alfred, 115 William st.
Devoe Mfg. Co., 117 Fulton st.
Earle & Groesbeck, 513 Washington st.
Egbert & Brown, 26 Pine st.
Fowler, Crampton & Co., 142 Front st.
Fleetwood, Henry, 311 E. 48th st.
Fenton, Fales & Ketchum, 12 Gold st.
Froberg, Francis, 479 Broome st.
Flanders, C. N., 97 Maiden lane.
Francis, George W., 175 Washington st.
Galloway, George W., 203 Pearl st.
Gasquoine, Samuel, 81 Cliff st.
Goodkind, M., & Co., 52 Water st.
Green, David C., 18 Rose st.
Greives, John, 3 Hanover st.
Haaren, R. J., & Co., Weste Bank.
Habirshaw, Frederick, 113 Maiden lane.
Hastings & Co., 154 Front st.
Hewitt & Scofield, 2 Cedar st.
Harrison, Wm. H., 235 Pearl st.
Hale, Joseph, Jr., 176 Fulton st.
Hiffelsheimer, J. T., 170 Front st.
Hamburger, Solomon, 68 Lewis st.
Hutchinson, E., 103 Maiden lane.
Hensler, Andrew, 511 E. 15th st.
Harley, John P., 32 Pine st.
Hogg, Charles B., 271 Second st.
Heye & Rice, 55 Pine st.
Hoffman Petroleum Co., 8 Pine st.
Home Petroleum Co., 8 Pine st.
Irvine & Bunker, 70 Wall st.
Island Oil Co., 34½ Pine st.
Ives, W. J., & Co., 74 Beaver st.
Johnson, Richard H., 35 Dey st.
Jacobs, Ernest, 75 Pearl st.
Jewett, John, & Sons, 182 Front st.
Judd Linseed & Sperm Oil Co., 139 Front st.
Johnston, James P., 325 Pearl st.
Kelley, Edward G., 116 Maiden lane.
Ketcham, F. O., & Co., 105 Maiden lane.
Kimball, W. H., & Co., 118 Maiden lane.
Kellogg, Edward H., 17 Cedar st.
Kellogg, Peter C., & Co., 110 John st.
Kendrick, Isaac, 81 Maiden lane.
Ketcham, F. O., & Co., 110 South st.
Knight, Austin M., & Co., 83 Gold st.
Leavitt & Smith, 159 Front st.
Lennox, Charles S. S., 42 Cedar st.
Leonard, F. W., & Co., 118 Maiden lane.
Lester Oil Mfg. Co., 81 Maiden lane.
Libbey & Clarke, 118 Maiden lane.
Lowden, Edward M., 85 New Chambers st.
Leach, Henry L., 73 Maiden lane.
Leonard & Ellis, 107 West st.
Lockwood Bros. & Holly, 62 Beaver st.
Lyles & Polhemus, 140 Front st.
Lombard & Co., 40 Broadway.
Lombard, Ayres & Co., 58 Pine st.
Marsily, Schalk & Co., 66 Beaver st.
Mitchell, R. G., & Co., 168 Pearl st.
Martin, Frederick, 49 Dey st.
Moore, I. & C., & Co., 182 Pearl st.
Mayhew, F. LB., & Co., 140 Front st.
Mead, P. W., 124 Maiden lane.
Merchant, Albert T., 543 W. 24th st.
Meyer, Samuel, 126 Maiden lane.
Miller, Frank & Co., 20 Cedar st.
Milliken, E. T., & Co., 139 Maiden lane.
Montgomery Oil Co., 109 W. Broadway.
Morton, Henry J., 124 Maiden lane.
McKenzie, E., & Co., 132 Maiden lane.
McRea, E. W., 143 Maiden lane.
Macy, Joshiah's, Sons, 525 Water st.
Manhattan Oil Co., 16 Broadway.
N. Y. Oil Co., 42 Cedar st.
Northern Light Oil Co., 38 Broadway.
Ohlen, Henry C., 32 Cedar st.
Owston, Sowers & Co., 61 William st.
Parsons, Milo H., 141 Maiden lane.
Pratt, Charles, 108 Fulton st.
Popham, Wm. H., 51 Front st.
Pryer, Jasper, 160 Front st.
Petroleum, Fuel & Lubricator Co., 34½ Pine.
Prentice, Frederick, 26 Pine st.
Rose & Co., 4 Hanover st.
Robinson, James, 83 Beaver st.
Rowe, Thomas, & Sons, 181 Front st.
Roudebush, Clint & Co., 42 Pine st.
Railroad Oil Co., 115 Liberty st.
Riggs & Bunce, 150 Front st.
Sinclaire & Marvin, 8 Liberty st.
Smith, Murray W., 90 West st.
Sattler, August, 67 Beaver st.
Southern Oil Works, 42 Cedar st.
Sherwood, Irving, 140 Maiden lane.
Stonewall Oil Co., 133 Maiden lane.
Sloane Lubricating Oil Co., 34½ Pine st.
Swan, Alden S., 442 Water st.
Sonneborn, Dryfoos & Co., 58 Pine st.
Star Linseed Oil Co., 235 Pearl st.
Sidell, Cornelius V., 7 Broadway.
Smith, Fitzhugh, 56 Cortlandt st.
Squier, L. B., & Co., 172 Front st.
Schmitt, Strong & Co., 43 Exchange place.
Talmadge, Harvey E., 374 Washington st.
Truesdell, Edward D., 376 Washington st.
Turner, James, 72 Maiden lane.
Taylor, J. J., & Co., 68 Cortlandt st.
Tennent, J. H., & Co., 226 Pearl st.
U. S. Petroleum Co., 45 Exchange place.
United Petroleum Farms Assn., 8 Pine st.
Vantassell, Joshua A., 16 Jay st.
Wendt, H., & Co., 154 Reade st.
Wadsworth Bros. & Co., 207 Pearl st.
Ward, Charles E., & Co., 2 Liberty st.
W. Va. Oil & Land Co., 134 Front st.
Westlake, Hutchins, Wood & Co., 9 S. William st.
Wheelock, John W., 118 Maiden lane.
Wickes Bros., 120 Maiden lane.
Wilcox, Wm. J., & Co., 417 Washington st.
Wood, A. J., & Co., 313 Washington st.
Woodruff, Houston, 128 Maiden lane.
Woodward Oil Co., 128 Maiden lane.
Worms, Samuel, 170 Duane st.
Wright, D. F., & Co., 102 Maiden lane.
Williams, Elber T., 138 Maiden lane.
Williams, S. R., 60 William st.
Yenni, Gregory & Co., 125 Maiden lane.

A key to the contrast which will be noted between this list of names and one which would represent the trade to-day will be found in the necrology of the trades, as recorded in the obituary column of the Reporter during all these years. We have compiled a necrological table from this source, and include in it the dates of issues of the paper in which the deaths were recorded, as a matter of reference. Doubtless this list is incomplete, but its proportions are none the less appalling.

NECROLOGY, 1871-1896.

Issue of.	Name and Firm.	Date of death.	Age.
May 22, 1872.	Josiah Macy, of Josiah Macy's Sons	"Last week."	88
Aug. 21, 1872.	Franklin E. Bradshaw	Aug. 18, 1872.	46
June 17, 1874.	James Lee, of James Lee & Co.	June 17, 1874.	78
April 21, 1875.	George D. Wetherill, of George D. Wetherill & Co.	April 13, 1875.	81
May 26, 1875.	Philip W. Engs, of P. W. Engs & Co.	May 19, 1875.	86
July 21, 1875.	Henry Fischer	June 20, 1875.	63
Sept. 15, 1875.	Arthur H. Williams, of A. H. Williams & Co., Boston	Sept. 5, 1875.	26
Sept. 15, 1875.	Henry T. Blow, St. Louis	Sept. 11, 1875.	58
July 19, 1876.	Tully W. Sterry, of Weaver & Sterry	July 15, 1876.	—
Oct. 11, 1876.	Josiah Macy, Jr., of Josiah Macy's Sons	Oct. 5, 1876.	35
Jan. 24, 1877.	A. H. Taft, of Taft & Tyler	Jan. 22, 1877.	47
Feb. 7, 1877.	Edward H. Stabler	Feb. 2, 1877.	—
Feb. 28, 1877.	Dr. Wm. Falke, with Hartman, Laist & Co.	Feb. 27, 1877.	—
Mar. 21, 1877.	Edward H. Carle, of John Carle & Sons	Mar. —, 1877.	—
April 11, 1877.	George W. Jewett, of John Jewett & Sons	April 5, 1877.	61
Feb. 20, 1878.	Henry J. Baker, of H. J. Baker & Bro.	Feb. 17, 1878.	60
April 3, 1878.	Ernest Caylus, of E. Caylus, Bechet & Co.	April 1, 1878.	65
Aug. 21, 1878.	Austin M. Knight	Aug. 15, 1878.	48
Sept. 11, 1878.	Wm. H. Knoepfel	Sept. 8, 1878.	63
Oct. 23, 1878.	Daniel P. Ketchum, of Ketchum & Reed	Oct. 18, 1878.	33
Nov. 27, 1878.	Thomas H. Powers, of Powers & Weightman	Nov. —, 1878.	66
Feb. 12, 1879.	E. L. Maitland, with F. W. Devoe & Co.	Jan. 25, 1879.	—
June 25, 1879.	William Adamson, of Baeder, Adamson & Co.	June 17, 1879.	57
Dec. 10, 1879.	Rollin Stanford, of Stanford Manufacturing Co.	Dec. 2, 1879.	73
Dec. 17, 1879.	James M. Motley, of Manhattan Oil Co.	Dec. 11, 1879.	59
Feb. 18, 1880.	J. J. Powers, of Future City Oil Co., St. Louis	Feb. 12, 1880.	48
Feb. 25, 1880.	Dr. Benjamin Brandreth, of Brandreth & Co.	Feb. 19, 1880.	73
Mar. 17, 1880.	Lewis Sheldon, of Brooklyn White Lead Co.	Mar. 11, 1880.	55
Mar. 17, 1880.	Major William Frew, with Standard Oil Co., Pittsburg	Mar. 8, 1880.	54
Mar. 31, 1880.	Emil Dreyfus, of J. G. Dreyfus & Co.	Mar. 26, 1880.	33
Mar. 31, 1880.	William H. Holme, of Welch, Holme & Clark	Mar. 29, 1880.	33
Jan. 5, 1881.	Charles R. Degen, of Degen, Taft & Lee	Dec. 26, 1880.	83
Jan. 5, 1881.	Francis Humphreys, of Hemingway & Co.	Dec. 29, 1880.	40
Jan. 26, 1881.	T. J. McCoy, of American White Lead Works	Jan. 17, 1881.	70
Feb. 16, 1881.	Robert Prince, of Prince Manufacturing Co.	Feb. 15, 1881.	38
Feb. 23, 1881.	Wm. A. Thornburgh, of W. A. Thornburgh & Co., St. Louis	Feb. —, 1881.	52
Mar. 9, 1881.	James Donald, of Locust Hill Oil Works	Mar. 6, 1881.	65
April 20, 1881.	Isaiah Woodbury, of F. O. Pierce & Co.	April 13, 1881.	40
May 25, 1881.	Henry Wood, of Henry Wood's Son & Co, Boston	May 2, 1881.	70
July 20, 1881.	Jared Parkhurst, Jr., of J. Parkhurst & Co., Baltimore	July 14, 1881.	33
July 20, 1881.	John Morgan, of Enoch Morgan's Sons Co.	July 16, 1881.	47
Aug. 24, 1881.	George Binns, Sr.	Aug. 20, 1881.	77
Oct. 12, 1881.	H. B. Spelman, of Standard Oil Co.	Oct. 10, 1881.	71
Nov. 16, 1881.	Sheldon Goodwin, of Brooklyn White Lead Co.	Nov. 15, 1881.	43
Jan. 11, 1882.	Stephen G. Lee, of Taft, Lee & Co.	Jan. 8, 1882.	40
Jan. 18, 1882.	Eugene Grasselli, of E. Grasselli & Co., Cleveland	Jan. 10, 1882.	72
Feb. 15, 1882.	Charles A. Morgan, of Morgan & Allen	Feb. 9, 1882.	65
Feb. 15. 1882.	James A. Davis, of Davis, Wolt & Co.	Feb. 15, 1882.	31
Mar. 1, 1882.	Francis S. Fleming, of Sone & Fleming	Feb. 27, 1882.	40
Mar. 1, 1882.	Levi L. Livingston, of Livingston, Ward & Co.	Feb. 25, 1882.	63
Mar. 15, 1882.	B. V. Vandervort, of B. L. Fahnestock & Co., Pittsburg	Mar. 9, 1882.	—
April 5, 1882.	Truman Dunham, of Cleveland Linseed Oil Works	Mar. 30, 1882.	52
June 7, 1882.	Dr. David E. Breinig, of Bridgeport Wood Finishing Co.	May 31, 1882.	64
June 14, 1882.	Thomas Weddle, of Thomas Weddle & Co.	June 6, 1882.	91
June 14, 1882.	M. S. Mepham, of M. S. Mepham & Bro., St. Louis	Late in May, '82.	—
June 21, 1882.	Richard P. Currie	June 7, 1882.	58
July 5, 1882.	Henry A. Polhamus, of Lyles & Polhamus	June 24, 1882.	—
July 26, 1882.	S. H. Doggett, of Doggett Bros., Philadelphia	July 23, 1882.	—
July 26, 1882.	Ludwig Gehe, of Gehe & Co., Dresden	June 22, 1882.	73
Aug. 30, 1882.	Robert Rennie, of Lodi Chemical Works	Aug. 23, 1882.	70
Sept. 6, 1882.	Hubbell W. Risley, of Chas. F. Risley & Co.	Aug. 31, 1882.	75
Sept. 6, 1882.	Samuel W. Hawes, of Hawes & Harmon	Aug. —, 1882.	76
Oct. 4, 1882.	John J. McLaren, with Lanman & Kemp	Oct. 2, 1882.	55
Oct. 4, 1882.	George Kim, of Abel, Kim & Co., Pittsburg	Sept. —, 1882.	60
Oct. 11, 1882.	Eugene Sieber, with Downer Kerosene Oil Co.	Oct. 1, 1882.	62
Oct. 11, 1882.	Herman Lange, of Abel, Kim & Co., Pittsburg	Sept. 30, 1882.	—
Oct. 11, 1882.	I. P. Evans, of Evans & Co., Indianapolis	Sept. 28, 1882.	61
Oct. 11, 1882.	Porte C. Wheeler, of Singer, Wheeler & Co.	Sept. 26, 1882.	—
Oct. 18, 1882.	Wilson Cunningham, Sr., of Cunningham & Co., Pittsburg	Oct. 4, 1882.	—
Nov. 1, 1882.	Dr. D. C. Keller, of Keller & White, Evansville	Oct. 24, 1882.	—
Nov. 1, 1882.	John V. Cox, of Babcock & Cox	Oct. 26, 1882.	70
Nov. 8, 1882.	Cyrus P. Markel, of C. P. Markel & Sons, Pittsburg	Nov. —, 1882.	72
Nov. 15, 1882.	Frank Plunkett, of Wolf, Howard & Co., Pittsburg	Nov. 3, 1882.	39
Nov. 15, 1882.	George Pool, of George Pool & Son	Nov. 8, 1882.	67
Nov. 15, 1882.	Frederick B. Doubleday, with Ilsley, Doubleday & Co.	Nov. 8, 1882.	—
Nov. 29, 1882.	Dr. John I. Brown, of John I. Brown & Sons, Boston	Nov. 23, 1882.	92
Nov. 29, 1882.	John M. Crisfield	Nov. 23, 1882.	45
Dec. 6, 1882.	Jacob Adams, with Battelle & Renwick	Dec. 3, 1882.	48
Feb. 7, 1883.	Samuel G. Cornell, of Cornell Lead Co., Buffalo	Feb. 5, 1883.	75
Mar. 21, 1883.	Gilbert Potter, Sr., of Gilbert Potter & Co.	Mar. 19, 1883.	70
April 4, 1883.	Russell W. Robinson, of R. W. Robinson & Son	Mar. 28, 1883.	72
April 4, 1883.	Jeremiah Curtis, of Anglo-American Drug & Medicine Co.	Mar. 27, 1883.	79
April 4, 1883.	George T. Chambers, of Chambers Bros. & Co.	Mar. 28, 1883.	47
April 11, 1883.	Peter Cooper	April 4, 1883.	92
May 9, 1883.	Gustave Schiff	May 4, 1883.	64
May 11, 1883.	Francis Burke, Greenpoint	May —, 1882.	56
May 9, 1883.	Samuel P. Smith, Orange, N. J.	May 2, 1883.	78
May 16, 1883.	William R. Renwick, of Battelle & Renwick	May 13, 1883.	67
May 16, 1883.	James Young, F.R.S., LL.D., London	May —, 1882.	72
May 23, 1883.	Abraham Mansell, of Mansell, Birnbaum & Co.	May 15, 1883.	58
May 23, 1883.	Edward Tatum, of Whitall & Tatum	May 15, 1883.	62
June 20, 1883.	Norman White, of Chas. T. White & Co.	June 13, 1883.	78
June 20, 1883.	Philip Schieffelin, of W. H. Schieffelin & Co.	June 12, 1883.	64
June 20, 1883.	John E. M. Harron, of Chester Oil Co., Philadelphia	Not stated.	47
July 4, 1883.	Frank E. Ellis, with Meade & Tucker, New Orleans	June 26, 1883.	30
July 4, 1883.	Charles L. Stickney	July 3, 1883.	72
July 4, 1883.	John A. Norton, of Norton & Manning, New Orleans	June 18, 1883.	—
July 18, 1883.	Thos. H. Larkin, of Larkin & Scheffer, St. Louis	July 5, 1883.	74
Aug. 1, 1883.	Henry L. Kendall, of Kendall Manufacturing Co.	July, 1183.	79
Aug. 1, 1883.	Wm. Fergusson, of Fergusson Bros., Philadelphia	July 27, 1883.	54
Aug. 8, 1883.	Thomas Stanger, of Warrick & Stanger, Glassboro, N. J.	"Last week".	60
Aug. 29, 1883.	John S. Lamson, of John S. Lamson & Bro.	Aug. 21, 1883.	50
Aug. 29, 1883.	L. M. T. Schramme	Aug. 25, 1883.	47
Sept. 5, 1883.	John G. Irish	July 24, 1883.	—
Sept. 12, 1883.	Terence Campbell, of T. Campbell & Co.	Sept., 1883.	76
Oct. 3, 1883.	Charles Magarge, Philadelphia	Oct. 1, 1883.	79
Oct. 17, 1883.	George A. Beling, of Beling, Niemeyer & Wessels	Oct., 1883.	64
Oct. 17, 1883.	Edward Lyon, of Lyon & Co.	Oct. 13, 1883.	45
Oct. 24, 1883.	Lewis Morris, of Lewis Morris & Co.	Oct. 23, 1883.	55
Nov. 21, 1883.	Edgar W. Burdsal, of James S. Burdsal & Co.	Nov. 10, 1883.	33
Nov. 21, 1883.	William Wood, of Eagle White Lead Co., Cincinnati	Nov. 8, 1883.	75
Nov. 28, 1883.	John Oesterling, of Central Glass Co., Wheeling	Nov., 1883.	59
Dec. 19, 1883.	Charles W. Keeler, with Hall & Ruckel	Dec. 15, 1883.	46
Dec. 26. 1883.	Dana B. Seaver, of B. W. Allen & Co.	Dec. 20, 1883.	45
Feb. 6, 1884.	Rollin C. Clark, of Clark & Warren, Corry, Pa.	Jan. 31, 1884.	47
Mar. 5, 1884.	William Birnbaum, of Mansell, Birnbaum & Co.	Jan. 28, 1884.	48
Mar. 12, 1884.	Henry P. Waring, of Waring & Son	Mar. 10, 1884.	85
Mar. 19, 1884.	Bethnel Keith, of B. Keith & Co.	Mar. 13, 1884.	73
Mar. 19, 1884.	Henry A. Tilden, of Tilden & Co.	Mar. 12, 1884.	—
Mar. 19, 1884.	Joseph A. Allen	Not stated.	—
Mar. 19, 1884.	Jeremiah Leaycraft, of Leaycraft & Co.	Mar. 17, 1884.	67
Mar. 26, 1884.	F. W. Hurtt, Pond's Extract Co.	Mar. 24, 1884.	52
Mar. 26, 1884.	Edward H. Marsh, Lazell, Marsh & Gardiner	Mar. 23, 1884.	55
April 2, 1884.	W. B. Miller	Mar. 27, 1884.	71
April 2, 1884.	John C. Smith, of Maritime Exchange	Mar. 27, 1884.	62
April 2, 1884.	James White, of J. & J. White, Glasgow	Mar. 10, 1884.	72
April 16, 1884.	Jean Baptiste Dumas, Paris	Not stated.	—
April 16, 1884.	Clinton Osgood Field, of Rogers, Livingston & Field	April 11, 1884.	24
April 30, 1884.	Benjamin W. Merriam	April 25, 1884.	81
April 30, 1884.	Peter Squire, England	April 6, 1884.	86
May 7, 1884.	William C. Dunton, of Bulkley, Dunton & Co.	May 1, 1884.	54
July 9, 1884.	Henry Davis, of Davis, Wolt & Co.	July 3, 1884.	74
Aug. 6, 1884.	Henry Haydock, of Haydock & Stabler	July —, 1884.	82
Sept. 17, 1884.	Wm. Hazeltine, Jr., of French, Richards & Co.	Sept. 13, 1884.	—
Sept. 17, 1884.	Henry Fink, Baltimore	Sept. 6, 1884.	59
Sept. 17, 1884.	John McCully Watson, of Wm. McCully & Co.	Sept. —, 1884.	28
Sept. 17, 1884.	George S. Weare, of Richardson Drug Co., St. Louis	Sept. 12, 1884.	—
Nov. 5, 1884.	James H. Littell, of Tarrant & Co.	Oct. 26, 1884.	41
Nov. 12, 1884.	George W. Smith, of Hostetter & Smith	Oct. 30, 1884.	60
Nov. 19, 1884.	W. H. Hamilton, of W. H. Hamilton & Co.	Nov. 5, 1884.	—
Nov. 19, 1884.	Wm. S. Evans, of Thos. Evans & Co.	Nov. 16, 1884.	46
Nov. 19, 1884.	Ormsby Phillips, of Phillips Bros.	Nov. 12, 1884.	—
Nov. 26, 1884.	Dr. Austin Sherman	Nov. 23, 1884.	81
Jan. 14, 1885.	Prof. Samuel Kent Kane	Not stated.	67
Jan. 21, 1885.	John C. Beach, of Beach, Sons & Co.	Jan. 15, 1885.	71
Jan. 21, 1885.	John J. French, of Howe & French, Boston	Jan. 17, 1885.	51
Jan. 21, 1885.	Prof. Benjamin Silliman	Jan. 14, 1885.	69
Feb. 4, 1885.	E. T. Milliken, of E. T. Milliken & Co., Boston	Not stated.	76
Feb. 4, 1885.	William W. Bellows, with Tarrant & Co.	Jan. 27, 1885.	34
Feb. 4, 1885.	John M. Webb	Jan. 29, 1885.	56
Feb. 4, 1885.	John Camerden, of Gilbert, Potter & Co.	Jan. 31, 1885.	64
Feb. 4, 1885.	Thomas Reed, of Reed & Co.	Feb. 3, 1885.	48
Feb. 18, 1885.	Adolph Hallgarten, of Lanman & Kemp	Not stated.	49
Feb. 18, 1885.	Hiram E. Gordon, of Salem Dye House	Feb. 10, 1885.	60
Feb. 18, 1885.	Richard H. Rickard, of Mining & Petroleum Exchange	Feb. 14, 1885.	—
Feb. 18, 1885.	James W. Davis	Feb. 14, 1885.	60
Feb. 18, 1885.	Joseph Hollis (drugs), Boston	Feb. 13, 1885.	74
Feb. 18, 1885.	Wm. A. Gellatly, of W. H. Schieffelin & Co.	Feb. 13, 1885.	54
Feb. 25, 1885.	Isaac Maynard, of Thorn & Maynard, Utica	Feb. 23, 1885.	69
Mar. 4, 1885.	James Heburn	Feb. —, 1885.	70
Mar. 11, 1885.	Peter Daley, with J. L. & D. S. Riker	Mar. 8, 1885.	55
Mar. 11, 1885.	Thomas E. Kern, Bradford (Pa.) Era	Not stated.	—
Mar. 25, 1885.	John Jones	Mar. 17, 1885.	71
Mar. 25, 1885.	Chester E. Crowell	Mar. 18, 1885.	27
April 8, 1885.	Francis S. Morgan, of Wing & Evans	April 7, 1885.	75
April 8, 1885.	A. W. Despard	April 7, 1885.	—
April 8, 1885.	John Babcock, of John Babcock & Co., Boston	Not stated.	70
April 15, 1885.	John Jacque Keller, of John J. Keller & Co.	April 7, 1885.	61
April 15, 1885.	Col. Charles D. Jillson, of J. C. Bloomfield & Co.	Mar. 30, 1885.	47
May 6, 1885.	Dr. Wm. T. Peek, of Peek & Velsor	May 1, 1885.	69
May 13, 1885.	D. W. Manwaring, Jr.	May 1, 1885.	—
June 17, 1885.	J. L. Perkins, Selma, Ala.	Not stated.	—
July 8, 1885.	Robert Colgate, of Atlantic White Lead and Oil Co.	July 4, 1885.	73
July 8, 1885.	Alexander Morris	July —, 1885.	53
July 8, 1885.	Francis Stabler	June 29, 1885.	60
July 29, 1885.	Hermann Von Fehling, Stuttgart	July 2, 1885.	73
July 29, 1885.	Nicholas Popplein, of G. & N. Popplein, Baltimore	July —, 1885.	71
Aug. 26, 1885.	Henry B. Parsons	Aug. 21, 1885.	73
Sept. 2. 1885.	Dr. Franz Xavier Landerer, Athens	July 19, 1885.	76
Sept. 9, 1885.	Gilbert D. Jones, of Gregory & Jones	Not stated.	70
Sept. 23, 1885.	William H. Brinton, Wheeling	Not stated.	39
Sept. 23, 1885.	Sydney H. Blanchard	Sept. 17, 1885.	60
Sept. 23, 1885.	W. E. O. Bourne	Sept. 19, 1885.	60
Sept. 30, 1885.	B. W. Bull, Hartford, Ct.	Sept. 25, 1885.	61
Oct. 7, 1885.	A. W. Kredel, Allegheny, Pa.	Sept. —, 1885.	—
Oct. 7, 1885.	George W. Lamson	Sept. 30, 1885.	—
Oct. 7, 1885.	Joseph E. Baldwin	Sept. 30, 1885.	62
Oct. 7, 1885.	Peter Ozier, Cambridge, Ohio	Sept., 1885.	83
Oct. 14, 1885.	Thomas Talbot, Billerica, Mass.	Oct. 6, 1885.	67
Nov. 18, 1885.	Josef J. Quetting, of J. J. Quetting & Co.	Nov. 14, 1885.	48
Nov. 18, 1885.	Henry Clay Gallup, of Jeremiah Curtis, Sons & Co., London	Oct. 31, 1885.	51
Nov. 25, 1885.	John W. Gillerman, with Standard Oil Co.	Not stated.	26
Dec. 16, 1885.	Frank P. Hopkins, of Geo. K. Hopkins & Co., St. Louis	Dec. 12, 1885.	—
Dec. 23, 1885.	John C. Draper, M. D., LL.D.	Dec. 20, 1885.	—
Dec. 30, 1885.	F. L. Fisher, of Fisher Varnish Co.	Dec. 21, 1885.	—
Dec. 30, 1885.	Benjamin Tatham, of Tatham & Bros.	Dec. —, 1885.	71
Dec. 30, 1885.	Dr. Wm. M. Warner, with Parke, Davis & Co.	Dec. 27, 1885.	35
Jan. 13, 1886.	G. Voight	Jan. 11, 1886.	60

SMITH, KLINE & FRENCH CO.,

PHILADELPHIA, PA.

MANUFACTURERS OF PHARMACEUTICAL PREPARATIONS AND CHEMICALS. IMPORTERS AND WHOLESALE DRUGGISTS.

Proprietors of Eskay's Albumenized Food, Low's Preparations, Dr. Hand's Remedies for Children, Dr. Laubach's Preparations, and Gallagher's Preparations.

Eskay's Albumenized Food.

(A NEW ARTICLE).

Small or trial size, per doz.,	$2 00	Large size, per doz.,	$6 50
Medium size, "	4 00	Hospital size, "	24 00

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LINIMENT (Magnetic and Electric).

Small, per doz.,	$3 00	Large, per doz,	$7 00

Worm Syrup, per doz., $1 50

Dr. Hand's Remedies for Children.

	Per Doz.		Per Doz.
Dr. Hand's Colic Cure,	$2 00	Dr. Hand's Diarrhœa Mixture,	$2 00
" " Teething Lotion,	2 00	" " Worm Elixir,	2 00
" " Pleasant Physic,	2 00	" " General Tonic,	2 00
" " Gough and Croup Medicine,	2 00	" " Chafing Powder,	2 00

Dr. Laubach's Preparations.

Liniment, per doz..	$3 00	Pills, per doz.,	$1 25
Worm Cure, "	1 25	Golden Seal Tonic, "	6 50

Gallagher's Preparations.

		Per Doz.			Per Doz.
Gallagher's	Magic Hair Oil,	$2 35	Gallagher's	Syrup, Wild Cherry and Tar,	$4 00
"	Medicated Oil Soap,	2 35	"	Infallible Worm Syrup,	1 75
"	Sarsaparilla Blood Pills,	1 75	"	Pile Ointment,	4 00
"	Vegetable Rheumatic Pills,	9 00	"	Fever and Ague Powders,	9 00
"	Vegetable Worm Confections,	1 75	"	Sugar-Coated Fever and Ague Pills,	9 00
"	Magical Liniment,	4 00			

Gallagher's Chinese Exterminator, $1.25 per box of 4 dox.

Wholesale Agents for Acorn Salve. Manufactured by the Giant Chemical Co.

Wholesale Agents for Sanderson's Herbs of Joy, $1.75 per Doz.

Manufacturers of the Following Chemicals:

Acid, Tannic,
Ammonia, Benzoate,
Ammonia, Salycilate,
Antimony, Chloride Solution (Butter Antimony)
Bismuth, Nitrate,
" Oxide, Hydrated, C. P.
" Oxychloride,
" Salicylate, basic 60 per cent.
" Subcarbonate,
" Subgallate,
" Subiodide,
" Subnitrate,
" Subtannate,
Caffeine, Citrated,
Calcium, Benzoate,
" Bromide,
" Salicylate,
Camphor, Monobromated,
Ergotine,
Ether, Acetic,
Iron, Citrate, Scale, "U. S. P.",
" " Soluble,
" and Ammonia Citrate,
" " " Tartrate,
" " Potash "
" " Strychnia Citrate,
" Lactate,
" Phosphate, Soluble,
" Pyrophosphate, Soluble,
" Salicylate,
" Sulphate, C. P.,
Lead, Iodide,
Lithium, Bromide,
" Benzoate,
" Citrate,
" Iodide,
" Salicylate,
" Tartrate,
Magnesia, Salicylate,
Mercury, Benzoate,
Olium, Denarcotized, Powdered,
" " Granulated,
" Granulated,
Potash, Bichromate, Crystalized,
" Citrate,
" Salicylate,
Quinine and Iron, Citrate, U. S. P.,
" " " Soluble,
Soda, Benzoate,
" Citrate,
" Dry Carbonate,
" Phosphate, C. P.,
" Salicylate,
Strontium, Bromide,
" Carbonate,
" Iodide,
" Lactate,
" Salicylate,
Thymol, Iodide.

FRENCH, CAVE & CO., Philadelphia, Pa.

Manufacturers of Perfumery, Extract of "SWEET CHIMES" and French's Concentrated Toilet Water Essences.

(A COMPLETE LINE, UNRIVALED IN QUALITY.)

Essence of Bay Laurel,	per pint,	$3 00	Essence of Verbena,	per pint,	$4 00
Oil of Cologne,	"	6 00	" " White Heliotrope,	"	4 00
Essence of Florida,	"	4 00	" " Rose,	"	6 00
" " Violet,	"	4 00	" " Crab Apple Blossom,	"	4 00
" " Lilac Blossom,	"	4 00	" " Trailing Arbutus,	"	4 00
" " Lavender,	"	4 00			

Issue of.	Name and Firm.	Date of death.	Age.
Feb. 3, 1886.	Dr. James P. Barnett, of Hore, Barnett & Co.	Not stated.	—
Feb. 17, 1886.	John D. Krehbiel, with J. B. Horner	Feb. 12, 1886.	31
Feb. 17, 1886.	George D. Lanman, with J. P. Robinson & Co.	Not stated.	40
Mar. 17, 1886.	Junius Gridley, of Gridley & Co.	Mar. 12, 1886.	65
Mar. 17, 1886.	Frank Wm. Sterry, of Weaver & Sterry	Not stated.	46
Mar. 24, 1886.	Henry Sugden Evans	Not stated.	65
Mar. 24, 1886.	Henry B. Courtney, of Diamond Match Co.	Not stated.	63
April 7, 1886.	Richard Hale, of Crane Chemical Co., Springfield, N. J.	Not stated.	66
April 14, 1886.	George L. Claflin, of Geo. L. Claflin & Co., Providence, R. I.	April 5, 1886.	64
April 21, 1886.	Francis Brown	April 12, 1886.	71
April 21, 1886.	Bernard Toch	April 15, 1886.	57
May 5, 1886.	Rodney C. Thursby, with M. Kalbfleisch & Sons, Brooklyn	Not stated.	54
May 5, 1886.	D. J. Oliver, San Francisco	Not stated.	62
May 5, 1886.	Joshua A. Ackerman, of J. H. Ackerman & Co.	April 25, 1886.	53
May 5, 1886.	Charles Henry Baxter, of Baxter, Bell & Co.	May 3, 1886.	70
May 5, 1886.	Ezra Weeks, with Lazell, Dalley & Co.	April 30, 1886.	53
May 5, 1886.	Joseph A. Hatry	April —, 1886.	55
May 12, 1886.	Paul T. Fritzsche, of Fritzsche Bros.	May 7, 1886.	40
May 12, 1886.	William E. Hines, of Arnold, Hines & Co.	"Last week".	58
May 12, 1886.	Dr. John F. Weightman, of Powers & Weightman	May 6, 1886.	41
May 19, 1886.	James Muspratt, Liverpool	May 4, 1886.	94
June 9, 1886.	Peter W. Hoagland, of David M. Stiger & Co.	June 2, 1886.	57
June 16, 1886.	Edward A. Boyd, of E. A. Boyd & Son	June 11, 1886.	65
June 23, 1886.	Charles Dennis, of Atlantic Mutual Insurance Co.	June —, 1886.	65
June 30, 1886.	Edward Elsworth, of Enoch Morgan's Sons	June —, 1886.	75
July 7, 1886.	James S. Kirk, of James S. Kirk & Co.	June 21, 1886.	68
July 28, 1886.	Luther Martin, of Luther Martin & Co.	Not stated.	62
Aug. 11, 1886.	Edward Hill, of Edward Hill, Son & Co.	Aug. 8, 1886.	62
Aug. 18, 1886.	Andrew Lyons, Pittsburg	"Last week".	—
Aug. 18, 1886.	James H. McLean, of McLean Medicine Co., St. Louis	Aug. 13, 1886.	—
Aug. 25, 1886.	Reuben H. Painter, of Painter Bros., Olean, N. Y.	Aug. 19, 1886.	56
Sept. 29, 1886.	William C. Ely, Clyde, N. Y.	Not stated.	68
Oct. 27, 1886.	"Joe" Desmond, with O., P. & D. Reporter	Oct. 24, 1886.	29
Oct. 27, 1886.	John J. Petit, of Parsons & Petit	Oct. 25, 1886.	58
Dec. 1, 1886.	Robert K. Remington, Fall River	Nov. 25, 1886.	60
Dec. 1, 1886.	Samuel C. White, of T. A. & S. C. White	Nov. 26, 1886.	66
Dec. 29, 1886.	M. E. Ansbacher, of A. B. Ansbacher & Co.	Dec. 23, 1886.	26
Dec. 29, 1886.	Benjamin Quackinbush	Dec. 23, 1886.	80
Jan. 26, 1887.	Edward Leavitt, of Brooklyn White Lead Co.	Jan. 21, 1887.	63
Mar. 2, 1887.	Zophar Mills	Feb. 28, 1887.	78
Mar. 16, 1887.	Silas W. Johnson, of Whittier, Fuller & Co., San Francisco.	Mar. —, 1887.	63
Mar. 23, 1887.	J. Watson Beach, of Beach & Co., Hartford, Ct.	Mar. 17, 1887.	64
Mar. 23, 1887.	James W. Trask	Mar. 22, 1887.	70
April 13, 1887.	James A. Webb, Jr., of Jas. A. Webb & Son	April 6, 1887.	—
May 11, 1887.	W. C. De Pauw, New Albany, Ind.	May 6, 1887.	66
May 25, 1887.	William H. Macy, President Seamen's Bank	May 19, 1887.	82
June 1, 1887.	Charles M. Childs, of C. M. Childs & Co.	May 24, 1887.	66
Aug. 24, 1887.	John D. Dix, of Dix & Co.	Aug. 22, 1887.	73
Aug. 31, 1887.	Charles O. Wolcott, of Masury & Co.	Aug. 26, 1887.	64
Sept. 21, 1887.	F. B. Taylor, of F. B. Taylor & Co.	Sept. —, 1887.	54
Oct. 5, 1887.	H. W. Lincoln, Boston	Sept. —, 1887.	54
Oct. 12, 1887.	Rufus Story	Oct. 6, 1887.	74
Oct. 26, 1887.	J. Lee Smith, of J. Lee Smith & Co.	Oct. 24, 1887.	70
Nov. 2, 1887.	William Reed, Pittsburg	Oct. —, 1887.	—
Nov. 16, 1887.	Paul Casamajor, Brooklyn	Nov. 13, 1887.	56
Nov. 23, 1887.	William D. Paterson	Nov. 19, 1887.	50
Nov. 30, 1887.	David Corvee, of J. L. Thompson, Sons & Co., Troy	Nov. —, 1887.	70
Nov. 30, 1887.	August Gildemeister, of Simonds & Gildemeister	Nov. —, 1887.	66
Nov. 30, 1887.	David Randall, of David Randall & Co., Boston	Nov. 25, 1887.	60
Nov. 30, 1886.	Charles K. June, of Acme White Lead & Color Works	Nov. 17, 1887.	—
Dec. 7, 1887.	J. J. Vandergrift, Jr., Pittsburg	Dec. 1, 1887.	29
Dec. 7, 1887.	J. M. C. Martin, of J. M. C. Martin & Sons	Dec. 1, 1887.	—
Dec. 14, 1887.	Robert J. Hunter, of H. W. Johns Manufacturing Co.	Dec. 12, 1887.	65
Jan. 4, 1888.	William A. Parsons, of Parsons & Pettit	Dec. 31, 1887.	60
Jan. 4, 1888.	B. L. Fahnestock, of B. L. F. & Co., Pittsburg	Jan. 4, 1888.	—
Jan. 11, 1888.	Dr. J. R. Nichols, Haverhill, Mass.	Jan. —, 1888.	68
Jan. 18, 1888.	W. H. Johnson	Jan. 13, 1888.	38
Jan. 18, 1888.	Julius Rosenburg, of S. Rosenburg & Sons.	Jan. 14, 1888.	34
Jan. 25, 1888.	Marshall Ayres, of Lombard, Ayres & Co.	Jan. 14, 1888.	81
Jan. 25, 1888.	Henry E. Williams, agent of Hemingway & Co.	Jan. 23, 1888.	35
Feb. 1, 1888.	Cyrus Wakefield, of Wakefield, Rattan Co.	Not stated.	25
Feb. 8, 1888.	Dr. Asa Gray, Cambridge, Mass.	Feb. —, 1888.	78
Feb. 15, 1888.	Byron D. Benson, of Tidewater Pipe Co.	Feb. 9, 1888.	60
Feb. 22, 1888.	George E. White	Feb. 20, 1888.	—
Mar. 7, 1888.	James How, of Union White Lead Manufacturing Co.	Feb. 28, 1888.	70
Mar. 7, 1888.	E. L. Naumann	Mar. —, 1888.	63
Mar. 7, 1888.	F. W. Mead	Mar. 1, 1888.	35
Mar. 21, 1888.	C. D. O'Sullivan, of Sullivan, Ravekes & Co., San Francisco.	Mar. 4, 1888.	66
Mar. 21, 1888.	Robert Morrison, of Morrison, Plummer & Co.	Mar. 6, 1888.	—
Mar. 28, 1888.	T. S. Freeman, of Warner & Freeman	Mar. —, 1888.	—
Mar. 28, 1888.	J. S. Booth, Philadelphia	Mar. —, 1888.	78
Mar. 28, 1888.	Charles Latimer, Cleveland	Mar. —, 1888.	66
Mar. 28, 1888.	C. N. Brackett	Mar. 26, 1888.	56
Mar. 28, 1888.	C. E. Wright, Marquette, Mich.	Mar. —, 1888.	40
Mar. 28, 1888.	M. R. Waite	Mar. 23, 1888.	72
Mar. 28, 1888.	William Halford, Boston	Mar. 30, 1888.	53
April 4, 1888.	George B. Douglass, Boston	Mar. —, 1888.	60
April 18, 1888.	Daniel C. Robbins, of McKesson & Robbins.	April 15, 1888.	73
May 16, 1888.	Mahlon Sands, London	May 8, 1888.	47
May 16, 1888.	C. F. Tay, of Howe, Balch & Tay.	May 7, 1888.	53
May 16, 1888.	A. F. Downing, with Lanman & Kemp.	May 14, 1888.	58
July 4, 1888.	Meyer Sondheim, of Sondheim, Alsberg & Co.	June 29, 1888.	43
July 11, 1888.	Dr. A. T. Lowe, Boston.	July —, 1888.	—
Aug. 1, 1888.	Martin N. Day	July 24, 1888.	52
Aug. 1, 1888.	Geo. W. Stoeckel, with Armstrong, McKelvy & Co., Pittsb'g.	July —, 1888.	53
Aug. 8, 1888.	Dr. Isaac T. White, of Keller & White, Evansville, Ind.	Aug. —, 1888.	57
Aug. 15, 1888.	John Bryce, of Bryce, Higbee & Co., Pittsburg	Aug. —, 1888.	64
Aug. 15, 1888.	E. P. Huylar	Aug. 11, 1888.	69
Sept. 19, 1888.	William Burger	Not stated.	91
Sept. 19, 1888.	John P. Wetherill, Philadelphia	Sept. 17, 1888.	65
Oct. 3, 1888.	Samuel Marx, with Sondheim, Alsberg & Co.	Oct. 1, 1888.	28
Oct. 10, 1888.	James Taylor, Baltimore	Oct. 4, 1888.	42
Oct. 24, 1888.	Vincent Gibbons, with W. H. Cole & Co., London	Oct. 23, 1888.	42
Oct. 31, 1888.	John D. Prince, of John D. Prince & Sons.	Oct. 27, 1888.	74
Oct. 31, 1888.	John Carle, Jr., of John Carle & Sons.	Oct. 28, 1888.	34
Oct. 31, 1888.	C. H. Phillips, of Charles H. Phillips Chemical Co.	Oct. 29, 1888.	69
Nov. 14, 1888.	Dr. David Hostetter, of Hostetter & Smith, Pittsburg	Nov. —, 1888.	70
Nov. 21, 1888.	William H. Brownell	Nov. 14, 1888.	45
Nov. 21, 1888.	M. F. Fowler, Boston	Not stated.	65
Dec. 12, 1888.	A. McClure, of A. McClure & Co, Albany, N. Y.	Dec. 4, 1888.	53
Dec. 19, 1888.	C. E. Morris, of C. E. Morris & Co.	Not stated.	62
Dec. 19, 1888.	Samuel R. Adams	Dec. 14, 1888.	71
Dec. 19, 1888.	David A. Stewart, Columbia Oil Co., Pittsburg	Dec. 14, 1888.	57
Dec. 26, 1888.	George H. Keith, of B. Keith & Co.	Dec. —, 1888.	48
Jan. 2, 1889.	A. D. Breed	Dec. 31, 1888.	78
Jan. 2, 1889.	Samuel H. Fox	Dec. —, 1888.	74
Feb. 6, 1889.	Frank S. Parrott, of Parrott Varnish Co.	Feb. 2, 1889.	29
Feb. 13, 1889.	George R. Wilkinson, of H. W. Johns Manufacturing Co.	Feb. 6, 1889.	35
Feb. 13, 1889.	Dr. Wm. Weightman, Jr., of Powers & Weightman	Feb. 11, 1889.	43
Mar. 13, 1889.	C. B. Linn, Philadelphia	Mar. 6, 1889.	73
Mar. 20, 1889.	John H. Evans, of Wing & Evans.	Mar. 17, 1889.	58
Mar. 20, 1889.	Frederick Heller, of Heller, Merz & Co.	Mar. —, 1889.	54
Mar. 27, 1889.	Charles Carruth, of N. & C. Carruth, Boston	Mar. —, 1889.	71
Mar. 27, 1889.	Read Holliday, of Read Holliday's Sons.	Not stated.	80
Mar. 27, 1889.	C. E. Coffin, with Wing & Evans	Mar. 21, 1889.	63
Mar. 27, 1889.	S. V. Scudder, of S. V. & F. P. Scudder	Mar. 21, 1889.	52
April 17, 1889.	M. E. Chevreul, France	April 9, 1889.	93
April 17, 1889.	William A. Cole, of W. J. Wilcox & Co.	April 15, 1889.	54
April 24, 1889.	A. Isaacs	April —, 1889.	81
May 8, 1889.	C. E. Fougera, of E. Fougera & Co.	Not stated.	68
May 8, 1889.	Dr. C. A. Robbins, of McKesson & Robbins.	May 4, 1889.	34
May 8, 1889.	David Rosenberg, of David Rosenberg & Sons.	May 3, 1889.	65
June 5, 1889.	N. Corwith, Sr., Chicago	May 29, 1889.	75
June 19, 1889.	William Taylor, of William Taylor & Sons.	Not stated.	78
July 3, 1889.	W. C. Potter	June —, 1889.	—
July 3, 1889.	R. G. Mitchell	June —, 1889.	78
July 3, 1889.	James A. Folger, of J. A. Folger & Co., Oakland, Cal.	June —, 1889.	54
July 3, 1889.	Stephen Jenney, of Stephen Jenney & Son.	June 30, 1889.	67
July 10, 1889.	J. H. Maginnis, New Orleans.	July 4, 1889.	—
Aug. 7, 1889.	Dr. W. B. Roberts, Titusville, Pa.	July 30, 1889.	66
Aug. 21, 1889.	W. J. Brundred, Oil City, Pa.	Aug. 12, 1889.	64
Oct. 2, 1889.	Lyman Klapp, of Union Oil Co.	Sept. 27, 1889.	62
Oct. 2, 1889.	F. Habirshaw	Sept. 28, 1889.	48
Oct. 9, 1889.	Louis Lutz, of Lutz & Movius.	Oct. 8, 1889.	51
Oct. 23, 1889.	B. T. Babbitt	Oct. 20, 1889.	80
Oct. 23, 1889.	C. H. Morley, of J. H. Morley Lead Co.	Oct. 16, 1889.	—
Nov. 6, 1889.	John F. Riday, with Oil, Paint and Drug Reporter.	Nov. 1, 1889.	43
Nov. 27, 1889.	Wm. H. Brown, of Winkelman & Brown Drug Co.	Not stated.	44
Dec. 4, 1889.	W. B. Potter, of Weeks & Potter, Boston.	Dec. 3, 1889.	65
Dec. 11, 1889.	Henry Harley	Nov. 28, 1889.	50
Dec. 11, 1889.	William N. Riddle	Dec. 9, 1889.	42
Jan. 1, 1890.	C. A. Ashburner, Pittsburg	Dec. 24, 1889.	36

Issue of.	Name and Firm.	Date of death.	Age.
Jan. 1, 1890.	L. F. Babcock, Cambridge, Mass.	Dec. —, 1889.	40
Jan. 8, 1890.	Edward Petit, of Parsons & Petit	Dec. 3, 1889.	59
Jan. 8, 1890.	Dr. Joseph Struthers, with F. W. Devoe & Co.	Jan. 3, 1890.	63
Jan. 8, 1890.	William W. Smith, with Tiemann & Co.	Jan. —, 1890.	—
Jan. 8, 1890.	George Delano, of George Delano's Sons.	Jan. 6, 1890.	69
Jan. 15, 1890.	C. Alheusen, England	Jan. 13, 1890.	82
Jan. 15, 1890.	Edwin Swain	Jan. 13, 1890.	65
Jan. 15, 1890.	George Maris, of John M. Maris & Co.	Jan. 11, 1890.	34
Jan. 22, 1890.	Emlen Painter	Jan. —, 1890.	56
Jan. 22, 1890.	Asa T. Soule, of Hop Bitters Co.	Jan. 17, 1890.	65
Jan. 22, 1890.	Hugo Schering, of Schering & Glatz.	Jan. 21, 1890.	50
Jan. 22, 1890.	E. F. C. Schering, of E. Schering	Dec. 27, 1889.	66
Jan. 22, 1890.	B. J. Adler, with McKesson & Robbins.	Jan. 20, 1890.	51
Feb. 5, 1890.	D. H. Gildersleeve	Jan. 29, 1890.	60
Feb. 12, 1890.	W. B. Gardiner, formerly of Lazell, Marsh & Gardiner	Not stated.	60
Feb. 12, 1890.	G. Kerner, Germany	Feb. 9, 1890.	—
Feb. 19, 1890.	A. Imgard, of Maltine Manufacturing Co.	Feb. —, 1890.	40
Feb. 19, 1890.	C. T. White, of C. T. White Chemical Co.	Feb. —, 1890.	55
Feb. 26, 1890.	H. H. Salmon, of H. H. Salmon & Co.	Feb. 21, 1890.	68
Feb. 26, 1890.	George Leonard	Feb. —, 1890.	59
Mar. 19, 1890.	Solomon Adler, of S. Adler & Sons.	Mar. 14, 1890.	74
Mar. 19, 1890.	George D. Rosengarten, of Rosengarten & Sons.	Mar. 18, 1890.	89
April 2, 1890.	D. J. Marrenner, of Heroy & Marrenner	Mar. 31, 1890.	69
May 21, 1890.	F. H. Tinker, of Oil, Paint and Drug Publishing Co.	May 14, 1890.	38
May 21, 1890.	L. C. Paine, of L. C. & I. C. Paine.	May 16, 1890.	63
May 21, 1890.	W. P. Fuller, of Whittier, Fuller & Co., San Francisco.	May 17, 1890.	63
May 21, 1890.	J. H. Redington, of Redington & Co.	May 17, 1890.	68
June 11, 1890.	D. S. Riker, of J. L. & D. S. Riker.	June 10, 1890.	65
July 2, 1890.	Samuel Wetherill	June 24, 1890.	69
July 2, 1890.	E. A. Frazer, of Frazer & Lee.	June 24, 1890.	62
July 9, 1890.	W. B. Woodward, of E. Fougera & Co.	July 6, 1890.	50
July 23, 1890.	Charles Schmidt, of Schmidt & Strong.	July —, 1890.	67
July 23, 1890.	M. M. Pigott, of M. M. Pigott & Son.	July 14, 1890.	65
July 23, 1890.	C. Braker, Jr., of H. J. Baker & Bro.	July 21, 1890.	62
July 30, 1890.	Clayton French, of French, Richards & Co.	July 27, 1890.	66
July 30, 1890.	H. M. Schieffelin, of W. H. Schieffelin & Co.	July 25, 1890.	82
Sept. 17, 1890.	F. W. Gerard, of Gerard & Brown.	July 24, 1890.	37
Sept. 17, 1890.	R. T. Bush, of Bush & Denslow Manufacturing Co.	Sept. 15, 1890.	50
Sept. 17, 1890.	A. T. Stevens, of Stevens Paint Specialty Co.	Sept. 8, 1890.	59
Oct. 15, 1890.	Thomas W. Leonard, with Hopkins, Dwight & Co.	Oct. 8, 1890.	59
Oct. 22, 1890.	W. T. Thurston, of Thurston & Braidich.	Oct. 19, 1890.	57
Nov. 26, 1890.	V. H. Smith, of Valentine H. Smith & Co., Philadelphia.	Nov. 21, 1890.	52
Dec. 17, 1890.	Jay Lee Smith, of J. Lee Smith & Co.	Dec. 11, 1890.	35
Dec. 17, 1890.	Henry Nordlinger, of Henry Nordlinger & Co.	Dec. 11, 1890.	61
Dec. 17, 1890.	Alfred Lister, of Lister's Ag. Chemical Works.	Nov. 30, 1890.	69
Dec. 31, 1890.	L. Richardson, of C. T. Raynolds & Co.	Dec. 25, 1890.	58
Jan. 14, 1891.	Semon Bache, of Semon Bache & Co.	Jan. 11, 1891.	65
Jan. 21, 1891.	Dr. Justice Wolff	Jan. 10, 1891.	54
Jan. 28, 1891.	W. B. Fisher, of I. & C. Moore & Co.	Jan. 23, 1891.	50
Jan. 28, 1891.	Hon. David Emery, Titusville, Pa.	Jan. 23, 1891.	54
Feb. 11, 1891.	John McKeown, Washington, Pa.	Feb. 8, 1891.	53
Feb. 18, 1891.	Charles Lennig, of Charles Lennig & Co., Philadelphia.	"Recently".	52
Feb. 18, 1891.	W. A. Pullman, President Seaboard National Bank	Feb. 13, 1891.	47
Feb. 18, 1891.	F. W. Parrott, of Parrott Varnish Co.	Feb. 12, 1891.	47
Feb. 25, 1891.	W. F. Conroy	Feb. 17, 1891.	63
Mar. 4, 1891.	W. G. Crissey, with Seabury & Johnson.	Not stated.	49
Mar. 11, 1891.	William Rupp	Feb. 15, 1891.	—
Mar. 18, 1891.	W. H. Macy, of Josiah Macy's Sons.	Feb. 13, 1891.	36
Mar. 18, 1891.	C. H. Hobart	Feb. 14, 1891.	59
April 1, 1891.	Clarence Brooks, of Clarence Brooks & Co.	Not stated.	—
April 15, 1891.	H. W. Woolsey, of C. A. Woolsey Paint and Color Co.	April 11, 1891.	—
April 22, 1891.	John T. Lewis, of John T. Lewis & Bros.	Mar. 29, 1891.	90
April 22, 1891.	J. S. Farrand, of Farrand, Williams & Clark.	Not stated.	76
April 22, 1891.	C. B. Baeder, of Baeder, Adamson & Co.	April 17, 1891.	48
April 22, 1891.	Isaac Plaut, with Lehn & Fink.	April 18, 1891.	65
April 22, 1891.	Edgar Holliday, of Read Holliday & Sons, Ltd.	April 16, 1891.	54
April 29, 1891.	A. A. Shalters	April 23, 1891.	—
May 6, 1891.	Charles Pratt, of Pratt Manufacturing Co.	May 4, 1891.	61
May 6, 1891.	W. F. Roeder, of Cleveland Varnish Co.	Not stated.	39
May 13, 1891.	Lawson Valentine, of Valentine & Co.	May 5, 1891.	63
May 13, 1891.	James Gamble, of Proctor & Gamble	April 29, 1891.	88
May 27, 1891.	J. M. Kiely	May 14, 1891.	45
June 17, 1891.	R. H. Hoadley, of Hoadley & Co.	June 9, 1891.	56
June 24, 1891.	C. H. Kalbfleisch	June 23, 1891.	53
Aug. 10, 1891.	R. J. Dodge, of Dodge & Olcott	Aug. 2, 1891.	34
Aug. 24, 1891.	S. O. Rollinson, with Atlantic White Lead Co.	Aug. 17, 1891.	61
Aug. 24, 1891.	S. E. Hiscox	Aug. 16, 1891.	—
Sept. 21, 1891.	Isaac Weaver, of M. B. Suydam & Co.	Sept. 12, 1891.	—
Sept. 28, 1891.	H. A. Bodine, with Ladd & Coffin.	Sept. 23, 1891.	46
Oct. 5, 1891.	J. H. Duggan, New Orleans	Oct. 4, 1891.	61
Oct. 12, 1891.	J. F. Dodd	Oct. 3, 1891.	73
Oct. 19, 1891.	William M. Gibbs, Sewickley, Pa.	Oct. 12, 1891.	—
Oct. 26, 1891.	J. B. Moore, of Moore & Hubbard, Syracuse	Oct. 17, 1891.	61
Nov. 2, 1891.	George O. Baker, Selma, Ala.	Oct. 16, 1891.	63
Nov. 2, 1891.	C. Witherill, of George B. Witherill & Co., Philadelphia.	Oct. 29, 1891.	76
Nov. 23, 1891.	W. M. Force, of I. & C. Moore & Co.	Nov. 20, 1891.	74
Dec. 28, 1891.	D. L. Ransom, of D. Ransom, Son & Co.	Dec. 6, 1891.	35
Jan. 4, 1892.	Dawson Miles, Jr., with E. Schibach & Co.	Dec. 29, 1891.	45
Jan. 4, 1892.	C. F. Erhardt, of Charles Pfizer & Co.	Dec. 27, 1891.	70
Jan. 4, 1892.	Thomas A. Allcock	Dec. 27, 1891.	77
Jan. 11, 1892.	F. R. Fowler	Jan. 4, 1892.	73
Jan. 11, 1892.	H. W. Henning	Jan. 12, 1892.	67
Jan. 25, 1892.	J. H. Richardson, with Parke, Davis & Co.	Not stated.	50
Feb. 22, 1892.	C. N. Manchester, of J. A. Dean & Co.	Feb. 16, 1892.	52
Feb. 22, 1892.	W. H. Boyle	Jan. 30, 1892.	78
Feb. 29, 1892.	John Jarvis, of Wetherill & Co.	Feb. 17, 1892.	79
Feb. 29, 1892.	Van W. Brinkerhoff	Feb. 25, 1892.	64
Feb. 29, 1892.	Daniel Stewart, Indianapolis	Feb. 25, 1892.	68
Mar. 7, 1892.	R. C. Lyman, of Lyman Sons & Co, Montreal.	Feb. 21, 1892.	42
Mar. 18, 1892.	Solomon Carter, of Carter, Carter & Kilham, Boston.	April 11, 1892.	76
May 23, 1892.	George A. Young	May 9, 1892.	45
May 23, 1891.	William Wells, of Wells, Richardson & Co.	Not stated.	—
May 30, 1892.	Oliver Johnson, of Oliver Johnson & Co., Providence, R. I.	May 20, 1892.	93
May 30, 1892.	W. B. Blanding, of W. B. Blanding & Co., Providence, R. I.	May 25, 1892.	—
May 30, 1892.	S. R. Pinckney, of Himrod Medicine Co.	May 20, 1892.	69
May 30, 1892.	W. F. Simes, of W. F. Simes & Son, Philadelphia.	May 21, 1892.	74
May 30, 1892.	J. Monroe Taylor	May 21, 1892.	74
June 13, 1892.	John L. Whiting, of John L. Whiting & Sons, Boston.	June 5, 1892.	69
June 13, 1892.	Hon. Albert Fox	June 6, 1892.	53
June 27, 1892.	W. J. Bower	June 22, 1892.	60
June 27, 1892.	F. Eckstein, Jr., of Anchor White Lead Co., Cincinnati.	June 14, 1892.	33
June 27, 1892.	John Chapman, with G. A. & E. Meyer.	Not stated.	—
July 4, 1892.	H. W. Fuller	June 28, 1892.	62
July 25, 1892.	P. W. Bedford, of Pharmaceutical Record.	July 20, 1892.	56
Aug. 1, 1892.	J. C. Johnson, Memphis.	Not stated.	—
Aug. 1, 1892.	S. Van Duzer	Not stated.	41
Aug. 15, 1892.	Peter Ripley, of Howe & French, Boston.	Aug. 8, 1892.	66
Aug. 22, 1892.	J. A. Bostwick, of Standard Oil Co.	Aug. 16, 1892.	43
Sept. 12, 1892.	James R. Miller, Little Rock, Ark.	Sept. 4, 1892.	54
Sept. 19, 1892.	S. W. Knowles, of Thomas Knowles & Co., New Bedford.	Sept. 13, 1892.	48
Sept. 19, 1892.	E. Boehringer, of C. F. Boehringer & Soehne	Not stated.	52
Oct. 3, 1892.	J. L. Kirkland, of McKesson & Robbins.	Sept. 25, 1892.	49
Oct. 10, 1892.	Charles H. Johnson	Not stated.	64
Oct. 24, 1892.	C. E. Billings, of Billings, Clapp & Co.	Oct. 19, 1892.	58
Nov. 14, 1892.	Alanson Sheley, of Williams, Davis, Brooks & Co.	Nov. 7, 1892.	53
Nov. 28, 1892.	F. B. Nichols	Nov. 19, 1892.	63
Nov. 28, 1892.	J. J. Thomsen, of John J. Thomsen & Sons, Baltimore.	Nov. 22, 1892.	59
Dec. 19, 1892.	Elisha Myrick, Melrose, Mass.	Dec. 10, 1892.	71
Dec. 19, 1892.	C. W. Smith	Not stated.	—
Jan. 9, 1893.	H. A. Hind.	Jan. 5, 1893.	—
Jan. 9, 1893.	H. H. Crocker, of Henry H. Crocker & Co.	Jan. 5, 1893.	73
Jan. 16, 1892.	A. H. Tack, of McCalmont Oil Co., Philadelphia.	Jan. 10, 1893.	—
Jan. 23, 1893.	B. C. Webster, of National Lead Co.	Jan. 19, 1893.	73
Feb. 6, 1893.	C. P. Hemenway, Boston	Jan. 27, 1893.	74
Feb. 20, 1893.	S. J. Colgate, of National Lead Co.	Feb. 15, 1893.	43
Feb. 20, 1893.	H. H. Burgess, of Burgess, Forbes & Co., Portland, Me.	Feb. 13, 1893.	60
Mar. 6, 1893.	James Richardson, of Richardson Drug Co., St. Louis.	Feb. 28, 1893.	77
Mar. 13, 1893.	T. N. Bolles	Mar. 8, 1893.	63
Mar. 13, 1893.	Joseph Hughes	Not stated.	26
Mar. 13, 1893.	R. C. Harris, of Billings, Clapp & Co.	Mar. 9, 1893.	43
Mar. 27, 1893.	Henry Coffin	Mar. 25, 1893.	75
Mar. 27, 1893.	Benjamin H. Field, of C. de P. Field & Co.	Mar. 17, 1893.	79
April 3, 1893.	J. J. Lawrence, of W. W. Lawrence & Co., Pittsburg.	Mar. 27, 1893.	66
April 10, 1893.	Dundas Dick, of Dundas Dick & Co.	April 8, 1893.	55
April 24, 1893.	Henry Spurlock, of Spurlock, Neal & Co., Nashville.	April 14, 1893.	—
May 29, 1893.	John F. Henry, of John F. Henry & Co.	May 25, 1893.	59
June 12, 1893.	George W. Campbell, of Campbell & Thayer.	June 4, 1893.	60
July 17, 1893.	Jules Aldige, American Cotton Oil Co., New Orleans.	July 13, 1893.	60
July 17, 1893.	Theodore St. John, of St. John Bros.	July 8, 1893.	46
July 17, 1893.	C. P. Hazen, with C. M. Childs & Co.	July 12, 1893.	—
Sept. 11, 1893.	Henry S. Platt, of Platt & Thornburgh, St. Louis.	Aug. 18, 1893.	—
Sept. 18, 1893.	John M. Maisch	Sept. 13, 1893.	43

J. L. & D. S. Riker,

Commission Merchants and Manufacturers' Agents

Office, 46 Cedar St. Warehouse, 71 Pine St.

NEW YORK.

Double Refined Alkali,
Soda Ash, Alkali,
Caustic Soda,
Caustic Potash,
Chlorate Potash,
Chlorate of Soda,
Oxalic Acid

"Crystal Carbonate" (A Substitute for Sal Soda—Superior and Cheaper)

Agents for, Manufacturers of and Dealers in

Bichromate of Potash and Soda,
Madder, Garancine,
Cochineal, Indigo,
Yellow Prussiate Potash,
Muriate of Ammonia (All Grades)
Carbonate of Ammonia,
Quinine, Opium,
Chloride of Calcium,
Glycerine, (Crude and Refined)
Silicate of Soda,
Sulphate of Soda,
Bicarbonate of Soda,
Nitrate of Soda.

Sole Agents for the United States and Canada of

THE UNITED ALKALI CO., Limited, of Great Britain

For the sale of their various brands of Bleaching Powder, "Greenbank Specialties" and other articles of their manufacture.

Issue of.	Name and Firm.	Date of death.	Age.
Sept. 18, 1893.	J. C. Eastman	Sept. 12, 1893.	—
Oct. 16, 1893.	John McKesson, Sr., of McKesson & Robbins	Oct. 11, 1893.	86
Nov. 6, 1893.	William L. Vennard, of McKesson & Robbins	Oct. 28, 1893.	51
Nov. 27, 1893.	George Kemp, of Lanman & Kemp	Nov. 22, 1893.	68
Nov. 27, 1893.	William T. Coleman	Nov. 20, 1893.	—
Dec. 11, 1893.	Edward Austen, Baltimore	Dec. 6, 1893.	—
Dec. 11, 1893.	Cooper Smith, of Cooper Smith & Co	Dec. 8, 1893.	56
Jan. 1, 1894.	Moses T. Campbell, of Campbell & Thayer	Dec. 23, 1893.	44
Jan. 1, 1894.	George McDermott, of Edward Hill's Son Co	Dec. 24, 1893.	48
Feb. 12, 1894.	R. E. Sellers, Pittsburg	Feb. 1, 1894.	80
Feb. 26, 1894.	E. A. Crenshaw, of Bullock & Crenshaw	Feb. 19, 1894.	67
Mar. 12, 1894.	S. Van Sycle	Not stated.	—
Mar. 19, 1894.	Patrick Gibbons, with McKesson & Robbins	Mar. 14, 1894.	73
April 9, 1894.	W. J. Cutler, of Cutler Bros & Co	April 1, 1894.	79
April 16, 1894.	John Satterfield, Buffalo, N. Y	April 5, 1894.	54
April 30, 1894.	Theodore Metcalf, of Theodore Metcalf & Co	April 26, 1894.	82
April 30, 1894.	Seth Talcott, of Talcott, Frisbie & Co	April 16, 1894.	64
April 30, 1894.	Thomas E. Eagles, with Devoe & Raynolds Co	April 23, 1894.	43
May 14, 1894.	George H. Summers, with Parke, Davis & Co	Not stated.	40
May 21, 1894.	John S. Moffitt, of Moffitt-West Drug Co	May 18, 1894.	39
June 25, 1894.	Jonathan Watson	Not stated.	—
July 9, 1894.	William Henry Hall, of Hall & Ruckel	June 30, 1894.	63
July 9, 1894.	H. L. Bushwell	June 5, 1894.	68
July 16, 1894.	S. B. Ulman, of Semon, Bache & Co	July —, 1894.	78
July 16, 1894.	John Purcell, of Purcell, Ladd & Co., Richmond, Va	June 29, 1894.	78
July 16, 1894.	P. C. Hanford, of National Linseed Oil Co	July 12, 1894.	55
July 30, 1894.	D. C. Belknap, of E. S. Belknap Manufacturing Co	July 14, 1894.	73
Aug. 20, 1894.	Joseph Burnett, of Joseph Burnett & Co	July 11, 1894.	74
Sept. 24, 1894.	John D. Park, of John D. Park & Sons Co	July 17, 1894.	81
Oct. 8, 1894.	James Wright, of Wright & Hill's Linseed Oil Co	Oct. 1, 1894.	58
Oct. 15, 1894.	J. L. Patty, Sewickley, Pa	Oct. 9, 1894.	44
Nov. 19, 1894.	Peter C. Tiemann, of D. F. Tiemann & Co	Nov. 15, 1894.	67
Nov. 19, 1894.	Peter Wolt, of Davis, Wolt & Co	Nov. 15, 1894.	65
Dec. 10, 1894.	George H. Lincoln	Dec. 3, 1894.	—
Dec. 24, 1894.	John Briggs, of Briggs, Hoffman & Co	Dec. 16, 1894.	74
Jan. 21, 1895.	M. B. Suydam, of M. B. Suydam & Co., Pittsburg	Jan. 14, 1895.	63
Feb. 11, 1895.	S. M. Burroughs, of Burroughs, Wellcome & Co	Jan. 6, 1895.	44
Feb. 11, 1895.	D. N. Lebess, of Lebess Sponge Co	Feb. 8, 1895.	—
Feb. 11, 1895.	Samuel H. French, of Samuel H. French & Co	Feb. 8, 1895.	70
Mar. 4, 1895.	Walter Adams, of Walter Adams & Co	Mar. 1, 1895.	94
Mar. 4, 1895.	S. Beymar, of Beymar-Bauman Lead Co	Feb. 23, 1895.	66
April 15, 1895.	W. G. Warden, Philadelphia	April 9, 1895.	64
April 15, 1895.	John Shaw, with T. & S. C. White	April 11, 1895.	53
April 22, 1895.	Dr. Gideon E. Moore	April 13, 1895.	53
April 22, 1895.	W. C. Wilson, of Harrison Bros. & Co., Philadelphia	April 16, 1895.	46
May 6, 1895.	Charles Richardson, of Charles Richardson & Co., Boston	April 29, 1895.	70
May 6, 1895.	George A. Thayer, of Campbell & Thayer	May 3, 1895.	73
May 13, 1895.	E. Dutilh	May 6, 1895.	81
May 20, 1895.	J. W. Masury, of John W. Masury & Son	May 14, 1894.	75
May 20, 1895.	T. H. Hinchman, of T. H. Hinchman & Sons	May 12, 1895.	77
June 3, 1895.	T. B. Atterbury, Pittsburg	May 29, 1895.	64
June 10, 1895.	S. M. Strong, of Strong, Cobb & Co	June 3, 1895.	63
June 10, 1895.	E. Weiss, with Bowman, Thompson & Co	June 1, 1895.	—
June 24, 1895.	M. F. Knudson, of Knudson, Paterson & Co	June 17, 1895.	47
June 24, 1895.	W. H. Schieffelin, of W. H. Schieffelin & Co	June 21, 1895.	59
July 1, 1895.	Wilhelm Pickhardt, of Wm. Pickhardt & Kuttroff	June 24, 1895.	61
July 1, 1895.	Gilbert Potter, of Gilbert Potter & Co	June 25, 1895.	46
July 8, 1895.	George F. Gregory, of Standard Oil Co	June 29, 1895.	—
July 15, 1895.	Charles A. Woolsey, of Chas. A. Woolsey Paint and Color Co.	July 4, 1895.	62
July 22, 1895.	Charles A. Kimball, with Rohe Bros	July 15, 1895.	53
Aug. 12, 1895.	George H. Vrooman, of Geo. H. Vrooman & Co., Chicago	July 5, 1895.	49
Aug. 12, 1895.	John Hodge, of Merchants Gargling Oil Co	Aug. 9, 1895.	58
Aug. 19, 1895.	H. H. Hay, Portland, Me	Aug. 9, 1895.	75
Oct. 14, 1895.	John Kirkman, of Kirkman & Son	Oct. 5, 1895.	26
Oct. 14, 1895.	P. P. Senour, of P. P. Senour & Co., Chicago	Oct. 1, 1895.	44
Jan. 27, 1896.	Geo. Fox, of National Starch Manufacturing Co	Jan. 17, 1896	70
Feb. 3, 1896.	Jas. A. Church, of Church & Co	Jan. 27, 1896.	57
Feb. 10, 1896.	W. P. Thompson, of National Lead Co	Feb. 3, 1896.	59
Feb. 17, 1896.	J. I. Fellows, of Fellows & Co., England	Jan. 22, 1896.	68
Feb. 17, 1896.	R. W. Tansill, Jr., of R. W. Tansill Co	Feb. 6, 1896.	27
Feb. 24, 1896.	Alfred Whitaker, of Brooks Oil Co	Feb. 18, 1896.	47
Mar. 2, 1896.	B. D. Bacon, of W. J. Matheson & Co	Feb. 24, 1896.	58
Mar. 9, 1896.	John Brower, of John Brower & Co	Feb. 27, 1896.	70
Mar. 9, 1896.	William Pettit, of Pettit Chemical Co	Mar. 5, 1896.	54
Mar. 9, 1896.	P. L. Cusachs, New Orleans	Feb. 25, 1896.	56
Mar. 9, 1896.	E. J. Richmond, Brooklyn	Feb. 28, 1896.	68
Mar. 23, 1896.	Henry Klein, of Henry Klein & Co	Mar. 15, 1896.	69
Mar. 23, 1896.	Wesley Chambers, Bradford, Pa	Mar. 17, 1896.	67
Mar. 30, 1896.	Henry Bower, Philadelphia	Mar. 26, 1896.	63
Mar. 30, 1896.	C. B. Turton, of C. B. Turton Co	Mar. 23, 1896.	32
Mar. 30, 1896.	W. T. Cluverius, New Orleans	Mar. 19, 1896.	59
April 6, 1896.	Orestes Cleveland, of Dixon Crucible Works	Mar. 30, 1896.	67
April 6, 1896.	R. J. Thompson, of Thompson & Bedford	Mar. 26, 1896.	47
April 6, 1896.	George Watson, Jr., of Watson & Co	April 2, 1896.	52
April 20, 1896.	E. Sehlbach	April 12, 1896.	48
April 27, 1896.	C. T. Raynolds, of Devoe & Raynolds Co	April 20, 1896.	80
May 4, 1896.	B. W. Mosher, Meriden, Ct	Mar. 26, 1896.	80
May 4, 1896.	Henry A. Bower, Philadelphia	April 27, 1896.	80
May 4, 1896.	Alex. B. Wilbor, Boston	April 27, 1896.	69
May 4, 1896.	J. F. Smith, of J. F. Smith & Co	April 24, 1896.	52
May 11, 1896.	G. W. Dearborn, Exeter, N. H.	May 2, 1896.	80
May 11, 1896.	R. D. Young, formerly of Young, Ladd & Conn	April —, 1896.	58
May 11, 1896.	J. T. North, London	May 5, 1896.	54
May 18, 1896.	J. H. McKelvy, of National Lead and Oil Co. of Penn'a	May 13, 1896.	56
May 18, 1896.	G. W. Snell, of Snell, Heitshu & Woodard	April 30, 1896.	67
May 18, 1896.	E. L. Tiemann, of D. F. Tiemann & Co	May 10, 1896.	46
May 25, 1896.	E. A. Bigelow, with J. C. Ayer Co, Lowell, Mass	May 18, 1896.	67
June 1, 1896.	S. A. Wharton, of Berry, Demoville & Co	Not stated.	61
June 1, 1896.	R. W. Porterfield, of Oil City Fuel Supply Co	June 1, 1896.	53
June 15, 1896.	H. R. Hollister, of Hollister Drug Co, Honolulu	May 12, 1896.	72
June 22, 1896.	J. B. F. Bliven, of Bliven & Carrington	May 31, 1896.	61
June 22, 1896.	C. B. Andrews, formerly of Empire Refining Co	June 18, 1896.	68
July 6, 1896.	John Kerry, of Kerry, Watson & Co, Montreal	June 30, 1896.	71
July 6, 1896.	L. T. Savage, with M. Kalbfleisch Chemical Co	June 30, 1896.	28
July 6, 1896.	John Bayley	July 2, 1896.	80
July 6, 1896.	J. S. Abecasis	July 2, 1896.	70
July 13, 1896.	John M. Coonan, with Price Baking Powder Co	July 8, 1896.	33
July 20, 1896.	Sydney B. Pickhardt	July 16, 1896.	28
July 27, 1896.	G. Vandehove	July 20, 1896.	55
July 27, 1896.	C. H. Ackerman	July 23, 1896.	48
July 27, 1896.	H. W. Holloway, of Johnston, Holloway & Co., Philadelphia	July 20, 1896.	36
Aug. 3, 1896.	Charles W. Kellogg	July 25, 1896.	81
Aug. 3, 1896.	John W. M. Bligh, of Mayfield-Bligh Co	July 25, 1896.	31
Aug. 31, 1896.	Wm. Huntington Wilcox, with Chesbro Manufacturing Co	Aug. 24, 1896.	29
Aug. 31, 1896.	Nathaniel T. Andrews	Aug. 24, 1896.	68
Aug. 31, 1896.	Frederick W. Simonds, of F. W. Simonds & Co	Aug. 27, 1896.	77
Sept. 14, 1896.	Dr. Geo. Browne Good, Washington, D. C	Sept. 7, 1896.	45
Sept. 14, 1896.	Thos. Burbidge, Burgoyne, Burbidge & Co., London	Sept. 10, 1896.	60
Sept. 14, 1896.	Jno. G. White, agent for Beach & Co	Sept. 5, 1896.	63
Sept. 14, 1896.	Frank Montell Bartow, agent for J. A. & A. W. Bird, Boston	Sept. 7, 1896.	30
Sept. 14, 1896.	Anton Roesingh, F. Bredt & Co	Sept. 6, 1896.	59
Sept. 21, 1896.	Edmund B. Hanna, Hanna & Andrews Manufacturing Co	Sept. 11, 1896.	30
Oct. 5, 1896.	Prof. G. F. H. Markoe, Jas. Burnett Co	Sept. 26, 1896.	60
Oct. 5, 1896.	Jas. Christie, with Fairchild Bros. & Foster	Sept. 17, 1896.	36
Oct. 19, 1896.	Geo. W. Coulston, Jno. W. Coulston	Oct. 9, 1896.	37
Oct. 19, 1896.	Wm. Hale Barrett, Sr., retired	Oct. 8, 1896.	66
Oct. 26, 1896.	Hamlin J. Andrus, The Arlington Chemical Co	Oct. 21, 1896.	48
Nov. 2, 1896.	Adolphus H. Maas, Maas & Waldstein	Oct. 23, 1896.	68
Nov. 9, 1896.	E. Waldo Cutler, Cutler Bros., Boston	Oct. 31, 1896.	70
Nov. 9, 1896.	Alfred Henry Mason, Seabury & Johnson	Nov. 2, 1896.	53
Nov. 9, 1896.	Geo. W. Graffiin, Georgia Chemical Works, Baltimore	Nov. 5, 1896.	75
Nov. 16, 1896.	Prof. Henry A. Mott, Professor of Chemistry	Nov. 8, 1896.	44
Nov. 30, 1896.	Thomas White, T. & S. C. White	Nov. 23, 1896.	93
Nov. 30, 1896.	Charles C. Beardsley	Nov. 12, 1896.	52
Dec. 7, 1896.	Dr. John Ellis, of Leonard & Ellis	Dec. 3, 1896.	81
Dec. 14, 1896.	Geo. N. Curtis	Dec. 3, 1896.	60
Dec. 21, 1896.	Robert Shoemaker, Robt. Shoemaker & Co., Philadelphia	Dec. 17, 1896.	79
Dec. 21, 1896.	C. Howard Scrymser, formerly Borne-Scrymser Co	Dec. 13, 1896.	48
Dec. 21, 1896.	Dr. E. H. Davis, drugs, Rochester	Dec. 10, 1896.	64
Dec. 21, 1896.	Wm. L. Lay, Pittsburg	Dec. 10, 1896.	69
Dec. 21, 1896.	Wm. H. Hostetter, secretary Cleveland Varnish Co., Cleveland	Dec. 6, 1896.	55
Dec. 28, 1896.	Jno. H. Zeilin, J. Henry Zeilin & Co., Philadelphia	Dec. 20, 1896.	62

To no period of years can be specifically ascribed the events of which it witnesses the consummation. Their inception must involve an era more or less remotely preceding, while their influence extends far beyond the years with which they may be most vividly associated. A review of what the Reporter has recorded, therefore, would be so imperfect as to be, to some extent, unintelligible to the reader, whose personal experiences did not afford the connecting information, if it failed to note anterior events that have led up to those which it has been called upon to chronicle. For this reason we have not restricted ourselves, in the narrative which follows, to the period which began with the first issue of the Reporter, but have allowed such latitude of reminiscence as would make this review the more complete, by connecting it with so much of the past as really figured in the history of the present. A commercial review is not of itself a vehicle for sentiment, but there is much attached to it that is of wider interest than mere statistical facts, and the value of the latter is not, we believe, lessened by accompanying them with collateral history of a more personal character.

IN THE OIL TRADE.

The great changes that have occurred in the methods of the oil trade have had a manifest influence upon the changes which are apparent in its list of followers. There has been a notable dropping out of those which were regarded as petroleum dealers, because of the absorption of so much of that business by a single organization, although many of the men whose names were conspicuous in that branch of trade in 1871 are to-day even more prominently identified with it, their identity, however, being lost in that of a great corporation. At the same time the influence of the progress which has been made in mineral oils is apparent in the changes that have overtaken other branches. Most of the fish and animal oils have largely given place to the mineral product, and their diminished sale has practically extinguished a number of the houses which were formerly prominent by reason of their connection with this traffic. Whale and sperm oils were the earliest to achieve industrial and commercial prominence, and one of the firms which occupied a conspicuous position in that branch of the business almost up to the time when the Reporter was first issued was Lyles & Polhemus. The members of this firm, with Mr. C. N. Decker, were, as late as 1845, in the employ of a Mr. Van Wyck, who conducted the fish and whale oil business in Fletcher street, Lyles being the bookkeeper, Polhemus the cooper and Decker the foreman and manufacturer. They wanted to buy the business from Van Wyck, but could not agree upon terms, and so started out for themselves, Lyles & Polhemus in South street, above Market, and Decker in James slip. At that time A. C. Kingsland, who was afterward Mayor of New York; the Judd Oil Company, and Pryor & Co. were about the only other firms of any prominence in the oil business here. In 1848 Mr. Philip M. Millspaugh, who is now at the head of the Manhattan Oil Company, went with Mr. Decker for the purpose of learning the business, and is, we believe, the oldest man, in point of service, now connected with the trade in this city. Mr. William F. Nye of New Bedford boasts of a record of fifty-six years, he having been apprenticed in 1840 to a builder of oil presses and factories at New Bedford. The water front of that city at that time presented acres of wharves, covered with sperm, whale, blackfish, sea elephant, walrus, porpoise and other fish oils, from which, up to 1855, the markets of this and other countries, the mills of the two Manchesters—in England and America—of Lowell and Fall River, drew their entire supply of lubricating and burning oils.

New Bedford, at that time, had never dreamed that mother earth had stored away reservoirs of sunlight to relegate the old oil lamp to oblivion; and Mr. Nye recalls, also, how frightened her ship owners became in the forties, when lard oil was introduced both as an illuminator and lubricator, and a committee, which had been sent to Cincinnati to investigate, returned and reported danger ahead. But not many years elapsed before—with increasing exports and the growing demand for the American hog abroad, as well as the rapid growth of the great West—it was demonstrated that the State of Ohio alone could consume the entire product of lard oil then made. This fact restored confidence, and the fleet of whalemen increased in numbers to nearly 600 ships in 1857-'58, of the value of $15,000,000, and manned by 10,000 hardy seamen. When the spouting wells of the Alleghanies began to surpass the spouting upon the ocean, and gradually the harpoon rested from its cruel death work, while the drill went down for richer treasures, quite a number of the old sea captains hastened to see what it was all about, and began flatboating oils down the rivers of Pennsylvania for a market.

About 1849 and 1850 the principal receivers of whale and sperm oils at this port were Grinnell, Minturn & Co., and Willits & Co. A little later C. H. Leonard and Hastings & Co., both of New Bedford, came in with crude oil to sell, and there were some ten or a dozen houses manufacturing here, with two or three New Bedford houses which had offices here. Mr. Millspaugh tells stories of the ease with which oil was sold in those days, and the profits it paid, which would tend to make the younger salesmen of to-day regret that they had not come upon the turf at an earlier date. It was his custom when business was slack at the store to just take a little turn around the swamp, with the result of sales of 25 to 100 barrels of tanners' oil and "gurry" in an hour's time, and at a good profit. Those oils were not sold by the gallon in those days, but by the barrel of 28 to 30 gallons.

Whale and sperm were used for most everything that oil was wanted for, excepting leather, on which neat's-foot oil, fish oil and gurry were used. The city of New York was lighted with sperm oil, and Kingsland & Co. had the contract for years. Finally, however, they found a competitor in a man of the name of Billows, who enjoyed it for some years, and Mr. Millspaugh recalls that his firm furnished the oil until the city got gas. The contract called for sperm, but Mr. Millspaugh doesn't think they always got sperm, but rather a bleached oil, one-half sperm and one-half lard. He, of course, did not know what he was buying, but so long as he gave them a good light, as he had the lighting as well as furnishing the oil, little attention was paid to details. Less notice was taken of the lights in the upper districts, and there he used whale. Mr. Millspaugh adds the statement, however, that business in those days was all done honestly, and without any jealousies. The foots from which whale and sperm oil were pressed were largely used in the early days for making gas. His firm had contracts with the following theatres and hotels at that time, which made their own gas: The old Broadway Theatre, the old Burton Theatre on Chambers street, the old Park Theatre. They also had Cousins' Hotel, as well as others. Foots were also used for soap purposes.

His firm experimented with lard oil in 1850, and, finding it a good substitute for sperm, fitted up their works for refined lard and lard oil. It was an oil that was very easily introduced, and became a leading oil for lubricating and burning in railway cars, instead of sperm. The continuation of that extended up to the date when the petroleum products came into use very largely. Sperm oil and tallow were chiefly used for cylinders in those days. Sperm and whale were the two principal oils used for railroad purposes.

Referring to the partial survival of fish oils, Mr. Nye, who has been the unceasing champion of these oils, but has done much to fit all lubricants to their finer purposes, says:

"We still find whale oil superior for screw cutting, drilling, turning and tempering. Sperm oil is still valuable for many purposes, with its inimitable spermaceti. Porpoise and blackfish oils are the par excellence for the wants of the now vast and valuable production of watches, clocks and electrical appliances, and the pogy is lighting the miner in safety through his subterranean passages. The brass candlesticks are now but souvenirs and heirlooms in our households, and the whale oil lamp embellishes the windows of the auction mart and curiosity shop."

ADVENT OF PETROLEUM.

The earlier years of the petroleum industry had to do rather with the production of burning oils than of lubricants, although the latter were a feature of the business from 1865 on. Up to 1870 the progress made in the manufacture of mineral lubricants had not been such as to make them serious competitors of the animal and fish oils, or the more especially of sperm. The natural West Virginia oils were among the first mineral lubricants to achieve wide popularity, because of their cold test, but as all of the heavy products of distillation had a very high congealing point, their use was restricted, even after the possibilities of their intrinsic qualities were manifest. The low burning

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70 per ct.
60 per ct.
Special 70 per ct.
Special 60 per ct.

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48 per ct.
36 per ct.
Dense 58 per ct.
Dense 48 per ct.
Special 48 per ct.

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MONOHYDRATE CRYSTALS: 1 lb equals 2½ lbs Sal Soda.

SNOW FLAKE CRYSTALS: 1 lb equals 2 lbs Sal Soda.

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point of the early heavy distillates also restricted their use. The improvement in the products and the recognition of their merits by manufacturers, with the subsequent indorsement of their safety by the Manufacturers' Mutual Fire Insurance Company of New England, all tended to rapidly increase the sale of these oils during the first ten years of the Reporter's existence. By the end of that period they had reached a recognition that has since been but little extended, although the perfection of the methods of manufacture has steadily progressed, and they have in later years been adapted to some uses which even then were rather a severe test of their qualities. One of the chief factors in the extension of their use has been their growing cheapness. At the same time they are now given a preference at a higher price than the oils which they have displaced. As an illustration of this, No. 1 lard oil has been sold at the West at 13c., while for a mineral lubricant 19c. has been the lowest price taken.

The West Virginia natural oils were sold here in 1870 by W. H. Boyd & Co., and these oils, by reason of their cold test, were largely exported through W. H. Ropes & Co. of this city to Russia, and also by them to England, they having houses in both St. Petersburg and London. Later on the reduced black oil was manufactured and directly superseded the West Virginia oils. The latter originally sold at about 35c., and its use was chiefly on railroads, but its production was always limited, and it is to-day, as regards heavy gravity, almost obsolete. The firm of W. H. Boyd & Co. was changed to Boyd & Thompson, Irving Boyd and R. J. Thompson and E. T. Bedford being members. It was later changed to Thompson & Bedford, and then the Thompson & Bedford Co., limited. On the retirement of Mr. Thompson, Mr. Bedford became its president. A large share of this stock was owned by the Standard Oil Company, and when the Standard Trust was dissolved the personal interests were acquired and the business has since been continued as the Thompson & Bedford Department of the Standard Oil Company.

The firm of Thompson & Bedford and their successors is the only firm or corporation that ever confined their sales exclusively to lubricants and petroleum wax.

Nature seems to have destined petroleum not only as a cheap illuminant, but the best and most effective lubricant for all classes of machinery. In 1875 Joshua Merrill, of the Downer Kerosene Oil Co., in a public speech, said that there was no piece of machinery of any kind or character that petroleum could not be made to best lubricate. This was a by-word and somewhat of a joke for many years, but the truth of the statement has been thoroughly demonstrated. Any mineral oil that is distilled is full of amorphous wax. In the early days the manufacturers used to put it in little cans and freeze it, there being no way of artificially cooling. In winter they could get cold-test oils by pressing, but not in summer. When ammonia machines came into use they overcame the difficulty. Later on the filter press was devised. The filter press is an English process, which was brought over here by E. T. Bedford some years ago. Their style of refrigerating is with a large drum, over which the oil flows and is chilled. The vacuum process was developed between Joshua Merrill on paraffine oil and Mr. Everest on black oils. They came together and agreed on a patent for their two different products. Their process was practically attaching a vacuum pump to a still and simmering the oil, that is, driving the light oils over without burning the residual products. This was in the early 70s. Leonard & Ellis came in later with the Binghamton Refining Company, their product being called continuous distilliation, by the use of superheated steam, forced into the still. Dr. Tweddle, of the Eclipse Works, was the man who got up the first neutral oils. We can credit Dr. Tweddle with the origin of the competition we got from Russia. He taught them what they first knew; then the Nobles took it up, and finally the Rothschilds. In this country he made the first neutral oil called Topaz, which was used here for adulterating sperm oils when they were high in price. This petroleum product was not a lubricant, but could be used as an adulterant, and it would prevent gumming. When the Eclipse was started the sole idea was to produce an oil that could be used to adulterate animal and vegetable. Downer's product was a high grade of paraffine oil, and he was the first to bring high fire-test burning oils to a state of perfection, and into prominence as superior to the animal products previously used.

The first oil sold by the Binghamton Refining Company was in the early 70s. Cheesbrough's works made cylinder oils in 1869 or '70, and at that time the oil sold at 75c. a gallon. About this time Kellogg, who was a large dealer, went in to buy cylinder oil as made by the Vacuum Oil Company, and got up the brand "Anti-Corrosive." He first did this in connection with R. J. Thompson & Co. Libbey & Clarke were the first makers of paraffine oils in Brooklyn, and Watson & Rider were one of the first in New Bedford.

What has been true of the progress of oils is equaly true of wax, especially in the United Kingdom, where petroleum wax but a few years ago was considered but one of the various candle materials, and the consumption was estimated at 5,000 tons. Within the last year the consumption within the United Kingdom alone has been in the neighborhood of 45,000 tons. It has been used to the exclusion of almost all other material, representing to-day fully 95 per cent. of the candle-making material used in that country, where the greatest quantity of candles are produced. Previously the material had been stearic acid, produced from animal fats, stearates from palm oil, and spermaceti. It has been lately demonstrated that petroleum wax will give equally 15 per cent. more light, and its lasting qualities are greater than any other candle material, and candles made from it will last fully 10 per cent. longer, therefore being the best and most economical illuminant. What is true of Great Britain is fast becoming true of all other foreign countries. It is estimated to-day that with all the candles produced nearly 50 per cent. of petroleum wax is used.

The increase in the number of factories in the production of these oils was very largely at other seaboard cities, notably Philadelphia and Baltimore, and at the interior points, such as Pittsburg, Cleveland, Buffalo and other cities within an easy freight haul of the oil country. The consolidations effected in the formation of the Standard Oil Company, and the accessions to its ranks from time to time, changed the centers of production to some extent, although the vast extent of the business has employed a good share of the productive capacity that was at all eligibly located. Clark & Warren, who started up at Corry about 1880, introduced some improvements into the manufacture of oils, but their career was cut short by bad business management. The Tidewater system became a large factor in the burning oil trade at the completion of its pipe line, about 1882, while Borne, Scrymser & Co. came into prominence a few years earlier, and did much to push the sales of the higher grades of lubricating oils in the foreign markets as well as here.

The development of transportation methods in connection with petroleum have marked a wonderful era in the progress of the industry. The pipe line system, which was begun in a small way in the old Venango county field about 1864, had no development, except in the way of gathering lines, until some ten years later, when there was a trunk line built from one of the field shipping points into Pittsburg, a distance of about forty miles. From that time on the building of lines to the seaboard attracted constant attention, but it was some time before one was an accomplished fact, and it was between 1880 and 1885 that the National Transit Company's lines and those of the Tidewater Pipe Line Company were in operation to New York and Philadelphia. The former was first to reach tidewater, and the latter only completed its line to the seaboard after a long fight. This contest has within the last few years been repeated by the United States Pipe Line Company, which even now terminates in New Jersey, some sixty miles from this port. Opposition to the pipe lines has naturally come from the railroad companies, and as each line has been completed it has joined in the fight against newcomers. The successful building of trunk lines is to be largely credited to Capt. J. J. Vandegrift, who foresaw, with others, the possibilities of the unlimited extension of this means of transit then in successful operation on short lines, and whose energy gave him "the courage of his opinions" necessary to undertake so gigantic an enterprise. The newest comer in the field, the United States Pipe Line Company, was, however, the first to pipe both crude and refined through the same line, which it is claimed can be successfully done, even with water-white oil.

The tank car, which first came into use early in the seventies, proved a great economizer in the transportation of petroleum, and while its use has been curtailed by the extension of pipe lines there are still many thousand of these cars in use and they have been extensively adopted in the transportation of cottonseed and linseed oils. Tank steamers were the next innovation. The first one came into use some ten years ago, but there is now quite a large fleet, and a valuable freight for sailing vessels has thus been taken from that class of carriers, although they still enjoy a large share of the carrying trade to the far East in case oil. The introduction of tank transportation wiped out a large traffic in empty barrels, both here and abroad, and also deprived the sailing vessels and tramp steamers of a profitable cargo on their west-bound trips from European ports. Both the tank car and tank steamer have undergone many modifications in the way of improved construction since they were first employed, and their extended use, as well as that of pipe lines, has been made possible only by the greatly reduced cost of iron and steel during the last fifteen years.

Among the earliest receivers of refined petroleum here were W. H. Schieffelin & Co. and Reynolds, Devoe & Pratt, the former prominent in drugs, the latter in paints. The oil houses of that date were not in so favorable a position to handle the new product, and it appealed strongly to the houses which had handled alcohol and turpentine in cans, much of the refined oil being sold in that style of package from the very outset of the business. The character of the business was, however, less suited to the drug business than to paints and oils, and, while the Schieffelins soon gave it up, it became a very important branch of the business of Reynolds, Devoe & Pratt, and soon constituted a separate department. When F. W. Devoe pulled out of the concern he also started a petroleum branch of his new paint business, and later on Charles Pratt took the oil branch of C. T. Raynolds & Co. and conducted it under his own name, thus founding the great concern which has since been a conspicuous branch of the Standard Oil Company. The Devoe Manufacturing Company was also separated from F. W. Devoe & Co., and was subsequently sold to the Standard, its brand, like that of Charles Pratt & Co., being widely known, especially to the export trade. Before this, however, and while the two concerns were running on opposite sides of Fulton street, there was a lively competition between them. Much of the business was done through brokers, and they played one house against the other for all there was in the game. This led to a combination betweeen the two, but it did not last long, and the sale to the Standard followed.

THE VEGETABLE OILS.

In no other branch of the oil trade has there been the same interesting development that can be recorded of the petroleum industry for the past twenty-five years, because in no other branch has the development been attended by such radical advancement in methods. The production of all vegetable oils has greatly increased during the period, and cottonseed oil at least has found many new uses, and has displaced other greases to a considerable extent. In the case of linseed oil, however, there has been little change beyond what could be attributed to the natural growth of consumption, and the increased production of flaxseed in America. The only other vegetable oil, besides castor, that has become of any consequence is that made from corn, its production having during the last five years assumed large proportions. This increase has been due to the necessity enforced upon the makers of other corn products of utilizing all waste materials. This industry will be covered more fully in the commercial review of the various oils, which appears in succeeding pages of this paper.

LINSEED OIL.

The manufacture of linseed oil in this section of the country has had its largest development within the last thirty years. While there were more mills in operation here twenty-five years ago than there are now, the output was not so great as at present, and none then was of the extent of either of those still operated. There were linseed oil mills in New York more than a century ago, one small affair having been located early in the present century on the corner of Broad and Water, but Thomas Rowe was practically the pioneer here. He was followed, we believe, by the Judd's, whose mill was for many years a familiar landmark at Corlear's Hook. They began business somewhere about 1835, and appear to have been followed by Robert Colgate & Co., and Campbell & Thayer. The former in 1855, and the latter in 1853. The Colgate's were led to make oil for their own use in connection with their business as grinders of white lead, and the same conditions induced John Jewett & Sons to begin crushing in 1864. The latter concern had, however, the additional incentive of being large consumers of oil in the manufacture of oilcloth. Much of the oil used at that time was imported and the large consumers had difficulty in obtaining a product of uniform or always desirable quality. The dates at which a number of the other concerns entered the business is uncertain, but Mr. Richard Lacey, who, in 1866, became a broker in linseed and oil and cake, recalls that there were at that time, in New York and its vicinity, engaged in the manufacture of linseed oil the Judd Linseed Oil Company, Robt. Colgate & Co., John Jewett & Sons, Fowler, Crampton & Co., I. & C. Moore & Co., Campbell & Thayer, Thos. Rowe & Sons, and afterward the Star Linseed Oil Company was added to the list, its works being at New Brunswick. To-day, out of the above firms, there are only Robt. Colgate & Co., owned by the National Lead Company, the Dean Linseed Oil Company, as successors to the oil business of Jewett & Sons, Campbell & Thayer, and A. B. Gibbs as successor of I. & C. Moore as crushers, still continuing business. Fowler & Crampton and the Star Linseed Oil Company have gone out of business. The Judd Linseed Oil Company took down its signs after they had been up fifty-two years. This was some years ago. Rowe & Sons went out of the business years ago; I. & C. Moore & Co. have gone out of the crushing business, so that of all those firms crushing linseed twenty-five years ago but four are left, and of these only one retains the original firm name.

I. & C. Moore became crushers in 1864, the firm consisting of the two Moores, Charles and Imlah, Wm. M. Force and A. B. Gibbs. F. S. Sinclair went into the firm in 1866, at which time the Moores retired. Upon Mr. Sinclair's retirement two years later, S. C. Force became a partner, and in 1872 A. B. Gibbs bought out the crushing business, which he has since continued under his own name.

Kelloggs & Miller at Amsterdam were among the earliest concerns whose names are yet familiar to the trade, and are of the still smaller number of those who have continued uninterruptedly in the business down to the present date.

Among the oldest mills are those of the Grove Bros. and John T. Lewis & Bro. at Philadelphia, the latter now belonging to the National Lead Company. The Caruths and the Tudor Ice Company at Boston were also in the business long before the Reporter became its chronicler. The Tudor Company got into crushing through its ice business. It was a large exporter of ice to the far East, and its ships would bring back East India goods, linseed being one of its most important articles of import.

The importation of oil into the United States had become of small consequence by 1870, but it is only within the last five years that Calcutta seed has ceased to be the chief source of linseed oil. Imported linseed oil for some years previous to and during the civil war was extensively handled by Sinclair & Marvin, who afterward handled the product of I. & C. Moore, and subsequently became interested in that mill. Mr. Sinclair, who is now well advanced in years, has not for some years been identified with these trades, but he forms a connecting link between the older circle of merchants whose diversified interests included oils, drugs, paints and chemicals, and the latter class which has divided these several lines into distinct branches of trade.

Mr. Sinclair, in referring to his early connection with the oil trade, when the principal part of the oil sold here was imported, said that it was then much of a speculative article, varying in price from 52c. to $1.10, and always considered a purchase at about 60c. per gallon.

Large importations at that time came from Hull, from the firm of Blundell, Spence & Co., who were celebrated for the quality of their double boiled oil. At this time the most of the linseed grown in the United States was grown in Washington County of this State, and later, as late as 1866, in fact, its cultivation was undertaken by Messrs. H. J. Baker & Bro. on a plantation in New Jersey, in connection with the crushing of seed which they carried on conjointly with their castor oil business. The cultivation of flaxseed has steadily gone westward in the years that have

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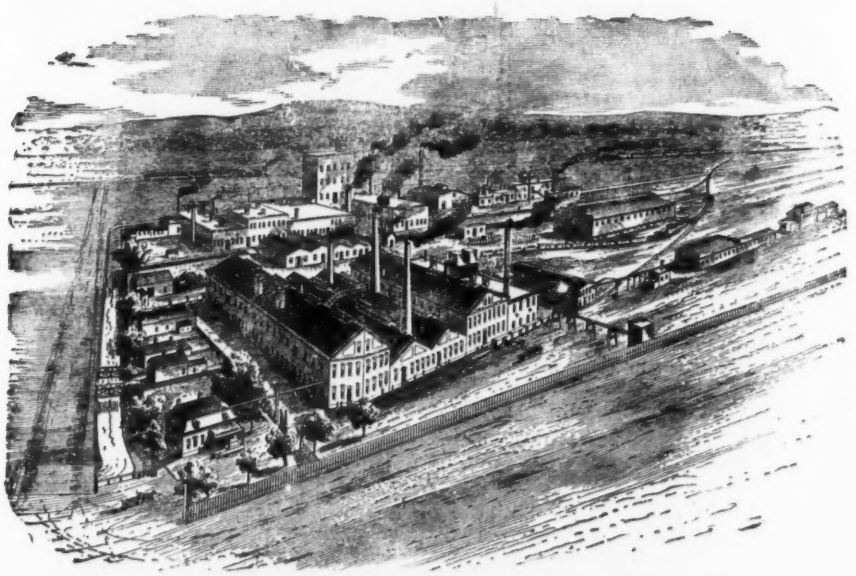

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ensued since then, having seen periods in the interim when it has been largely cultivated in Ohio, Indiana and Illinois, which States have now practically given up its cultivation, and this may be cited as proof that flaxseed is not a staying or paying crop for our agriculturists. The raising of it in a large way has now gotten as far West as the Dakotas, which it is supposed, are, so to speak, the last stronghold for the cultivation of flaxseed in this country, because after the Dakotas abandon it, it strikes the Rocky Mountains, and when it reaches that point it is to be presumed that any large cultivation of it in America, will be abandoned. The early years of manufacturing here were years of great prosperity for the whole trade, manufacturers, jobbers, commission merchants, brokers, importers and exporters, the prices ruling enabling handsome profits to be made all along the line of those interested in the business. For instance, in 1866 flaxseed sold for $4 a bushel in currency; linseed oil, $1.80 per gallon in currency, and cake at $80 per ton in currency. A fair percentage on this level of prices of course meant a liberal profit, so that the whole trade prospered exceedingly.

The importation of linseed oil was carried on in the sailing ships regularly plying between this port and London, Liverpool and Hull, and arrivals were very irregular. Mr. Sinclair recalls the arrival in one day of five ships, having together over two thousand casks of linseed oil, all precipitated on the market at one time, and nearly all owned or under the control of Sinclair & Marvin. The docks on East River were frequently crowded with casks of oil to the exclusion of almost other merchandise. Later on, the growth of the crushing business here contributed largely to the business and prosperity of this port. We had two large imports of East India linseed, which were brought here in the largest-sized sailing vessels afloat, and this was a great contribution to the prosperity of the poor. We, as a rule, were liable to carry right along in the stores on the Brooklyn water front, 100,000 to 200,000 bags of Calcutta linseed, and this importing business gave employment and occupation to weighmasters, lightermen, stevedores, etc. It also created a demand for large amounts of money to carry the stocks, and a large demand for fire insurance, so that the changes which have occurred in this business can be correctly characterized as a loss to the commerce of New York.

The importation of linseed and oil interested the largest of the old-time mercantile houses, which did business of a character that is but little known at the present time, when the facilities of communication and of foreign credits have removed the necessity of opportunity for middlemen.

Among numerous olden-time commercial importing houses may be mentioned such prominent names as Henry Chauncey & Co., E. D. Morgan & Co., Howland and Aspinwall, Godhue & Co. (afterward Weston & Gray), Nathaniel & George Griswold, Wetmore, Cryder & Co., Grinnell, Minturn & Co., Charles H. Marshall & Co., A. A. Low & Bros. and Oliphant & Co.

The Linseed Association was formed here in 1867, by the crushers of New York, Boston and Philadelphia, nearly all of whom were members, as well as the importers and dealers in seed. It was patterned after the Liverpool Association, and sought to insure a more uniform quality to the seed coming to this port, which had previously been subject to no accepted standard. The effect of the organization was satisfactory from the very outset, and it has been continued to the present time, its rules meanwhile having been applied to domestic seed. The only important change that has occurred in the standards of the trade is in the standard weight of seed, which at the time the association was formed was 52 lbs. to the bushel, but was raised a few years later. The membership of the association in 1868 comprised the following individuals, firms and companies:

Archer & Bull, New York.
Bacon, D. G., New York.
Campbell & Thayer, New York.
Colgate, Robert & Co, New York.
Cooper, Jr., Wm. B., & Co., New York.
Crocker, H. H., & Co., New York.
Cummins, T. K., & Co., New York, Boston.
Davis, Wolt & Co., New York.
Dix & Morris, New York.
Fowler, Crampton & Co., New York.
Glover, J. B., & Co. New York, Boston.
Hallett & Robbins, New York.
Hunter & Co., R. H., New York.
Jewett, John & Son, New York.
Judd Linseed & Sperm Oil Co., New York.
Kirkland & Von Sachs, New York.
Lewis, John T., & Bro., Philadelphia.
Mackay, Wm., & Co., New York and Boston.
Moore, I. & C., & Co., New York.
Morgan, E. D., & Co., New York.
Munzinger & Piptzipio, New York.
Napier & Wellsford, New York.
Rogers, Crocker & Co., Boston.
Rowe, Alfred L., New York.
Rowe, Thomas, & Sons, New York.
Star Linseed Oil Co., New York.
Tudor Co., Boston.
Weston & Gray, New York.
Wood, John D., New York.

Few changes in methods have occurred in the linseed oil business since the Reporter first entered the field. Mechanical appliances have been improved though not distinctly changed in the method of operation, and steam has supplanted direct heat. This change has probably done as much to improve the yield and economize the handling of seed as any modification of the original methods that has occurred.

The vast extension of the industry at lake points and further West has occurred within the past twenty years, and has been promoted no less by the increased production of seed than by the growing demands of the newer sections of the country. Buffalo has largely increased its capacity in the last ten years, while Ohio has a number of crushing points, and Chicago and St. Louis are both important centers of this industry. To these may be added Iowa and Minnesota, mills of comparatively recent construction, giving an aggregate capacity for manufacturing very much in excess of the country's needs. Some change in the localizing of production has occurred as a result of the consolidation of interests in the National Lead Company and the National Linseed Oil Company, but any advantages to the industry that might have occurred through these consolidations have been offset by the increase of production through the erection of new mills independent of these organizations.

COTTONSEED OIL.

In one of the earlies issues of the Reporter there appeared the following extract, credited to a New Orleans paper, by which it had been copied from the Niles Register of 1829:

"Cottonseed yields a considerable portion of excellent oil. The difficulty of expressing it, in consequence of the quantity and absorbing quality of the integuments of the kernel has been so great that heretofore no great quantity of the oil has been made. We are happy to announce that a highly respected gentleman of Petersburg, Va., has invented a machine by which the seed is completely hulled and prepared for the easy expression of its oil. The importance of this invention to the Southern country may be appreciated from the fact that the inventor is erecting a cotton gin, and will be shortly prepared to gin cotton for the seed only. This invention, as we understand it, consists of a granite cylinder, revolving within convex pieces of the same substance faced and placed in a peculiar manner. A hopper over the stone supplies the seed. A wire sieve under it separates the hull from the kernel. Dropping through a current of air from a wind fan, it is delivered clean and ready for the press. This machine will probably rank in the country second only to Whitney's gin. About twenty-five years ago Dr. George Hunter, chemist and druggist of Philadelphia, having made some experiments on the oil of cottonseed, thought it worth while to remove to New Orleans, where he carried two steam engines, purchased from Oliver Evans, the one for the purpose of grinding cottonseed. He did not find the place so well suited to his purposes as he expected, and did not set up his manufactory. Afterward, about 1818, Col. Clark, an ingenious inventor, made some experiments on the oil of cottonseed for burning in lamps. Oil of cottonseed is selling at Providence, R. I., at 80 cents per gallon."

This is the first reference we find anywhere to cottonseed oil, and the concluding sentence of the paragraph, to the effect that the oil is selling in Providence, cannot be considered as indicating that the industry was then on a commercial scale. Indeed, so little was known of it as late as 1852 that Mr. A. A. Maginnis of New Orleans, who was at that time a manufacturer of linseed oil, crushed a small amount of cottonseed experimentally in his mill, the oil being intended for medicinal use, and selling at about $1 per gallon. It was about 1855, we believe, that its manufacture was established by the Union Oil Company at Providence, on what was then regarded probably as a commercial scale. The company received its seed direct from the South, and the keen foresight of its manager laid the foundation for the extensive business which that corporation has since conducted, and which has been a prominent factor in the extension of the entire industry. During the war the manufacture of cottonseed oil was undertaken at this port, among the first crushers being the Stonewall Oil Company, and the Goodkind Brothers. The Glamorgan Company were receivers and refiners, and used the product largely in the manufacture of soap. It was not until some time after the close of the war that cottonseed oil became of any importance as an article of commerce, although the number of mills in the country had increased to about thirty at the time this paper was started, the increase having been entirely in the South, or at interior points near the cotton belt. At that time the use of cottonseed oil was chiefly as an adulterant, and, except as a soapmaking material, it had practically no outlet of its own unassociated with other oils. Between 1870 and 1880 the number of mills more than doubled, and a like ratio of increase was maintained through the next decade, while thus far in the 90s the multiplication of mills has been even more rapid. The formation of the American Cotton Oil Company in 1884, and the subsequent accession to its ranks seems to have rather stimulated than checked competition, though the industry has had during all this time recurring years of great prosperity, due to the enormous demands of its products, which have been developed by a more general recognition of their merits and their cheapness, as compared with competing articles. During the early history of the industry the equipment of the mills was rather primitive, and economies in handling seed as well as products was lost sight of in the margin of profit which the industry then afforded, even when conducted after a rather loose fashion. Later on, however, a closer regard for its details was forced upon crushers, and the mills erected during the last five or ten years are, most of them, models of construction and equipment. Until about ten years ago the largest sale of cottonseed oil, except as a soapmaking material, was in competition with edible oils consumed in Italy and France, but within the last ten years the manufacture of compound lard, and other cooking fats, has offered an enormous outlet for the oil. Its use as a burning oil has never been large, in comparison with other outlets, although it early found favor as a miners' oil, and to a considerable extent displacing lard oil in this channel. The popular recognition of the merits of cottonseed oil as a salad oil, and for the other finer purposes for which it was used, was very largely due to the labors of the late Lyman Klapp, while John V. Lewis was entitled to the chief credit for its introduction in the mines.

Among the earliest crushers of the South was the late Jules Aldige, who began the industry at New Orleans before the war, and who may be credited more than any other individual with the building up of the foreign demand for American cotton oil. His brands were, for a long time, the most popular in the Continental markets, and the quality of his products gave a permanent standing to this oil as a substitute for the more costly native edible oils in foreign countries, where they are largely consumed as food. The Maginnises, Capt. D. C. McCann and W. E. Hamilton were also among the pioneers of the business at New Orleans, while at Memphis, another point at which the industry developed early, the names of Wyley B. Miller, J. W. Cochran, J. C. Johnson and E. Urquhart are prominently associated with the business. Among the pioneers at interior points the most conspicuous developers of the industry were George O. Baker, at Selma, O. O. Nelson at Montgomery, Robert Thompson at Nashville, and James R. Miller at Little Rock and Memphis. Col. J. H. Duggan, who was connected with one of the early mills at New Orleans, late rentered the brokerage business in the cottonseed products, and was one of the first men to devote himself to this branch at the South.

With the quite rapid growth of the business in the early eighties, and the improvements that were introduced in the manufacture and refining of the product, came also the necessity for opening up new outlets, and the introduction of the oil for edible purposes, at least at the North, may be credited in no small degree to the receivers and brokers here who had the oil to sell and were compelled to force it into any channel that could be opened. The Chickasaw refinery was one of the first to push its oil into consumption in this way, and is closely identified with the progress that was made at the time in widening the field for refined cottonseed oil. The names of the houses here most prominently identified with the industry from the time its development really began, soon after the Reporter was started, were William J. Bower & Co., both as receivers and brokers; J. F. O'Shaughnessy, Simmonds & Gildemeister, Josiah Macy's Sons, I. & C. Moore & Co., and Thomas G. Hunt & Co., though the list of houses interested in the product rapidly extended with the growth of the manuafcturing industry.

The formation of the American Cotton Oil Company, which began in 1884, and was not practically completed until 1886, marked an important epoch in the industry. The range of prices given in the tables which appear elsewhere in this issue shows a depression in value during those years which has always been considered as having been due in part to the pressure brought by those already in the trust to force in those who had remained outside. The season of 1886-87 was the first in which the consolidation really enjoyed any controlling influence, and this was followed by the organization of the Southern Cotton Oil Company, which was in shape to operate on the next crop. The crop year 1892-93 witnessed as wide fluctuations as were ever recorded here, a speculative movement having successfully cornered all the stock late in the year, and forced prices up to the point of paying a very liberal profit.

The rapid increase of mills during the past five years has placed the industry in a position in many respects more unsatisfactory than it had ever before occupied, and marks another era, the conclusion of which will be watched with especial interest by those who have investments in the business.

To successfully market the steadily-growing production of cotton-seed cake and meal was one of the most serious problems confronting crushers during the early years of the industry, and, indeed, up to as late a period as ten years ago. Outside of the South the value of cottonseed as a feed stuff was not widely recognized either here or abroad, and there was, in fact, a prejudice existing against it by reason of the certain medicinal effects which were supposed to be inherent in all parts of the cotton plant. The Cotton Seed Crushers' Association as a body made strenuous efforts for a number of years to remove this prejudice in the minds of the stockfeeders, and a number of the more intelligent individual crushers also worked indefatigably in the same direction. As a result of this, and through the aid extended by the agricultural department of the Government and several States, cottonseed meal now sells considerably above the price of linseed meal, it having been thoroughly demonstrated that it contains the fat producing elements largely in excess of the older product. It is also highly valuable as a fertilizer, and between these two outlets it has proven the salvation of the industry in years when competition of other fats has forced oil down to an unprofitable level. The house of Soper & Co. at Boston did more than any other to extend the sale of these products at the North, and for a number of years were the chief distributors of meal, although the business has never reached the proportions that might have been expected, stock feeders having been slow in responding to the facts as to the value of the feed stuff, which has been put before them by the crushing interests.

CORN OIL.

In the Oil, Paint and Drug Reporter for Jan. 10, 1872, appears the following item relative to a product which many times before, and at repeated intervals since, has atracted about the same measure of public attention:

"Corn oil, though long known by name, has never been produced in sufficient quantity to supply our largest oil dealers with even a sample. The great difficulty has been the cost of making and its very strong odor, but of late a new process has been discovered for extracting the oil from the corn while making whisky, and taking away the disagreeable odor."

Corn oil is a product that has been of slowly but steadily growing importance for a number of years, but has only of late come into prominence. The older processes of manufacturing direct from the whole kernel lent no encouragement to the industry in competition with other vegetable oils, the grain be-

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Potash, Borax
Carbonate Crystal Soda. Etc.

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ing too valuable for other uses to make the manufacture of oil a primary consideration, while the value of the other corn products was sufficient to render unnecessary the careful recovery of this by-product. Patents taken out some years ago for removing the germ of the grain, which contains about all the oil and is useless in the manufacture of starch and glucose, had a tendency to revolutionize the business, and with the decline in values and the necessity of effecting all possible saving which was enforced by increasing competition, the manufacture of oil has grown very rapidly in extent and has been taken up by distillers, starch makers and others in a way that promises an enormous product during the next few years. What the effect of this will be upon a market already over supplied with greases for every conceivable purpose is a puzzling question. The oil is very bland, and is slow drying, but its use thus far seems to have been chiefly in the soap kettle and by paint men as an adulterant of linseed oil. It has already found a place in our exports, in consequence of the readiness of foreign manufacturers to take advantage of new materials. Corn oil doubtless has distinctive merits which are destined to make for it a place that will be conspicuous among vegetable oils. The cake is just finding its way into the list of food stuffs, but appears to be deficient in some of the qualities most essential in a stock food or a fertilizer.

THE STORY OF MENHADEN.

The menhaden industry is one which sprang into great prominence in the seventies, because of the very profitable character of the business during that decade. Production has been as great or greater since that period, although it is of a very fluctuating character, but the business is forced down to a basis of prices which requires the most economical methods to afford any profit to the fishermen or manufacturers. The first man who is remembered as having gone into the manufacture of menhaden oil as a business was Henry E. Wells, who was afterward known throughout the trade as "Daddy Wells." He inaugurated the business around Greenpoint, L. I. From there it extended all along the coast. In 1861 a factory was built by Thomas Robinson at Narragansett, manufacturing by the old method, in which the menhaden were first put into vats and casks, and the oil was allowed to work out by the decomposition of the fish. From Greenport Mr. Wells went to Maine, and did quite a successful business there. He and his brother, William A. Wells, who was in partnership with Edward de Bloise, and a man named Brown of Rhode Island, were the first menhaden fishermen from Long Island and Rhode Island to go into Maine waters. Afterward they went to Virginia and fished down there for several years, and then changed back to Maine, and finally finished there. The first menhaden business was done in sailing boats. Usually they would have two boats, called a "purse" and "mate" boat, and some two or three "carry-away" boats. The fishermen would go out in the morning in those boats, carrying their food from home. As the business grew they changed to sloops, which would stay out for a week or more at a time. About 1870 they began to change from sailboats to steam. The first boat ever built for the business was built by Church Bros. of Tiverton, R. I., the name of which was the Seven Brothers. From that time to 1875 there was built up a fleet of something like eighty boats, whose fishing course extended from Virginia to the State of Maine. About that date the business was at its best, on account of the prices of oil and guano being remunerative. The business ashore began to change soon after 1861, from the old-fashioned way of fermentation to pressing in bags, and afterward it was changed to cooking in tanks by steam. From that time to this there has never been any great change in the mode of cooking, pressing or handling at the factory, though there have been many changes in the general handling of the products. In 1886 Thomas F. Price of Greenport built a factory on a steamer called the Ranger, and he changed from place to place from Maine to Virginia, wherever the fish were moving. Loose Bros. of Nyantic, Conn., also had a floating factory, as well as Miles of Milford, Conn., but later on that manner of manufacturing had to be abandoned on account of drying the scrap. From the foundation of the business up to 1878 all the guano was sold crude, without any manipulation whatever. In 1879 they began to change the drying of it on a platform, and by other kinds of direct heat, to steam dryers. Later on there was another change from this process, and that was what they called acid fish guano. The process is to put about two gallons of 50 degrees sulphuric acid on 2,000 pounds of scrap. By doing this it prevents fermentation and fixes the ammonia, also dissolves the gones, giving a large percentage of available phosphoric acid. It is thrown on a pile and sinks to about 40 per cent. moisture, and the usual analysis shows about 7 per cent. of ammonia and from 13 to 17 per cent. of phosphoric acid, equal to from 6 to 8 per cent. available, and is considered to be one of the best elements of fertilization in the world.

Since 1875 there has been a dangerous competitor of menhaden oil in our markets, in the form of Japan oil, which is a by-product in the Japanese herring fisheries. It seems that the Japanese waters abound in herrings, and they are there all the year round. The fishermen are hired for about $6 a month, which makes the oil very cheap, the main object of the fishers being to get the fish for fertilizing purposes. The oils are sold in this market and in Europe without regard to price.

The menhaden usually appear on our coasts in April, May and June, from North Carolina to the Penobscot Bay, Maine, and their presence varies with the different years. In 1887 there was a very light catch east of Sandy Hook, but in 1888 they made their appearance on the coast of Rhode Island and in Maine in great quantities, as large as ever known, after an absence of ten years. The business there had grown to great proportions from 1870 to 1878, and then completely died out. There was no oil manufactured worth mentioning in ten years. Immediately after 1888 the business again revived. Several new factories were erected on different parts of the coast. After four or five years the fish disappeared again. This last year (1886) there was not a barrel of oil made in any factory in Maine. During the month of April, 1886, Capt. Solomon Jacobs, on one of his mackerel cruises, near Boody Island, N. C., came across a school of menhaden over sixty miles long. They came north and located between Chincoteague and Fire Island, which gave the Sandy Hook, Delaware and Greenport fleet good fishing for about four months, but very few came east of the east end of Long Island. There is something fickle and mysterious in the movements of menhaden, and that applies to every fish known on our shore. We have an illustration in the immense run of codfish that is on our coast this year. From Cape Cod to Long Island they have been so plentiful that single "pounds" have been taken up, at one haul of the trap, over 100 sugar barrelfuls of cod. They have been so plentiful on the back shores of Rhode Island that teams backed in, and men with pitchforks loaded the wagons. This is a bona fide story, and, according to so veracious a fisherman as Mr. D. T. Church, it can be proven. This same rule applies to the porgie. In 1890 there was an immense school, which appeared on the coast from Sandy Hook to Hyannis, and as good fishing as was ever known in the business followed. In 1895 the same thing happened again. There is a fish called the squitteau in Rhode Island, known in New York as the weakfish. They have been very plentiful from the Delaware to the Hyannis. Another illustration is the silver hake, otherwise known as frost fish. They made their appearance on the Cape Cod shore two or three years ago in such quantities that the pounds were so full it almost destroyed the fishermen's business, on account of the blocking up of their traps so they could not work them. They were not only present in sight on the bay, but the water was red with them for miles and miles off shore from Cape Cod, extending near to New London. It was a new fish in such quantities, which goes to show that men do not have any idea where fish come from nor where they go to.

Among the original fishermen of Long Island who are recalled by Capt. D. T. Church, who is one of the veterans of the business, are old Benjamin Conklin and a firm known as Downes Bros. They ran the old-fashioned carry-away boats and sloops. At that time they did not go outside of Montauk, but would fish around Gardiner's Bay and up the Sound. All this has been changed since steamers came in. They cruise as far south as the Delaware and as far East as the Kennebec, and last year they fished at the east end of Long Island. Around New London in '63 or '64, there were one or two factories run by Col. Morgan and Deacon Starr, afterward bought out by Charles Tuthil of Greenport. Luce Bros., who were among the leading fishermen, lived at Nyantic, Conn., and their operations have extended from Kennebec, Me., down to the Delaware. In Rhode Island the old fishermen that were mostly talked about forty or fifty years ago were Capt. Ben J. Taulman, Capt. Nick Taulman and Capt. John Browner, all of Portsmouth, R. I. They are all dead and gone, and their style of fishing has gone out of date. In the same town there was a man by the name of Taulman who carried on the menhaden oil business in the same way that Wells carried on his at Greenport. That is about fifty years ago. At present the heavy manufacturers are Thomas F. Price, George Tuthil & Co., J. Morris & Rainer, Ellsworth, Tuthil & Co., Hawkins Bros. & Co., all situated at Gardiner's Bay, N. Y.; Church Bros., Brown & Brickman, and Cottrell & Co. of Rhode Island; Barren Island Fertilizer and Oil Works, located at Barren Island, N. Y.; Luce Bros., Nyantic, Conn., and S. S. Brown and L. Wilcox, Mystic, Conn. In Maine there are several factories located from Booth Bay to Round Pond, Me.

CONCERNING THE SOAP INDUSTRY.

The soap industry has been of steadily growing interest to the branches of trade represented by the Reporter, through the increased demand for oils as soap-making materials, and by reason of its having become the chief source of supply for glycerine. The history of the industry in this section of the United States is full of interest. As late as 1860 the quality of the ordinary soap used for laundry purposes was very inferior. Even at that date a great deal of soft soap was used in laundries. At that time the hard soap sold for ordinary uses was made, for the most part, by a so-called "boiled down" process. That is, soap was boiled with salt and water pickle for several hours to make it hard and merchantable. A large amount of rosin was used in these boiled down soaps and inferior qualities of tallow or grease. Laundry soap was sold in this country in the same manner that sales were made in England—that is, by weight. The manufacturers cut soap into large blocks and delivered it to the grocers in returnable packages, without fixed lids. The grocers sold it just the way grocers nowadays sell cheese. If anybody wanted a pound, or a half a pound, the grocer would cut it off from the large block of soap which he had received from the soap manufacturer. Gradually the demands of trade insisted upon having regular, uniform bars of soap, and from that day to this the bar soap trade has been conducted in that way.

The first time that soap was put in the form which made it possible to become advertised as a "specialty" was when Jesse Oakley of Newburgh commenced the manufacture of his "German Detersive." This was a pound bar of fine "settled" sal soda soap, made largely from palm oil. It was cut in pound bars and was then wrapped by the manufacturer, or the wrappers were left loose in the top of each box.

This soap had an immense run in the East, and was imitated by all large manufacturers. But the great innovation was made when B. T. Babbitt introduced the cushion shape cake for laundry soap. His scheme was immediately successful. He not only sold an immense amount himself, but the whole trade was revolutionized. Within a short time all large manufacturers were putting up soap in the same shape. This opened the doors to the advertisement of specialties, and many popular brands which are to-day sold in the United States and Great Britain are the outgrowth of this scheme of Babbitt's. A later novelty was the White Floating Soap of Proctor & Gamble. This is a soap made of tallow and vegetable oils carefully combined, and which is, practically speaking, aerated in the crutching process. Everyone is familiar with this soap or its advertisements.

How much money has been spent in advertising these special lines of laundry soap no one can estimate, but we all know that it must reach a fabulous amount.

The manufacture of soap powders commenced in the United States about 1870, and from a very small beginning has grown to enormous proportions. Many of the old line manufacturers of laundry soaps were inclined to sneer at the possibility of soap powders ever getting a foothold in this country, but it certainly looks now as if they had come to stay. In reviewing the soap business one cannot fail to see the force of Darwin's theory of "the survival of the fittest." The poor soaps and the poor soap powders have had an ephemeral existence, while articles possessing intrinsic merit have survived and become veritable household words.

In the selection of materials for the manufacture of soap, there have been a few changes since the old days. Palm oil, which was used very extensively previous to the war, has, however, nearly ceased as a component of soap. Cocoanut oil is probably used more largely now than it was at the previous time. Cottonseed oil, which was but little known as an ingredient in the manufacture of soap thirty years ago, has now become one of the most prominent of the soap makers' materials.

During the last two or three years the plentiful crops of corn and the low price of hogs and their products have made it possible for the soap manufacturer to use lard or other hog fat in the manufacture of soap. The manufacture of oils from the Palm kernel, that is carried on largely in England, and the increased production of cocoanut oil itself, as made in Africa, have increased the supply of soft soap makers' material.

By the operations of the Gorman-Wilson bill, soap makers in this country have an opportunity of buying their materials, with the exception of soda, in whatever may happen to be the cheapest market in the world. If in case of a scarcity, or by operations of a speculative corner, the price of tallow in this market is above the parity of Liverpool or London, soap makers now can buy abroad either in Europe or direct from South America, Russia, Australia or Asia.

The manufacture and importation of caustic soda has been the outgrowth of the last thirty years. Before the war a large number of soap manufacturers in this country made their alkali either from "soda ash" or from barilla, which they causticized themselves by the use of lime. The making of lyes in those days was a very important part of the operations of a soap factory. It took a great deal of room and a great deal of trouble, and it was almost impossible to keep a soap factory in presentable or shipshape appearance. But now the soap makers have caustic soda in clean iron drums, and nothing is to be done in the making of lye, but simply to open the drum and dissolve the contents in water.

The general process of soap making has changed but very little. In the best appointed factories twenty-five years ago there was a great deal of manual labor that is now done away with. One man alone can now make and boil soap. All he has to do is to start his tallow from the pump, and start his lye running at the same time. When soap was made by the use of direct fire heat, it required a great deal of watchfulness and care on the part of the soap maker to avoid the burning of the contents, and also their boiling over. The furnaces were arranged in such a way that at a moment's notice the draft could be closed off or the fire drawn. By the use of steam, and especially "open" steam, the soap boiler has the mass entirely under his control, and can boil it or stop boiling it by a turn of the valve. Less paddling or manipulation of the mass is required by the steam process, as the jets agitate the soap in the most complete manner. In the old days in New York every soap manufacturer depended largely upon the house grease, which was gathered by men who went around from house to house with pails. To-day no manufacturer buys any but the regularly rendered tallow and grease, the purchase of the house fat being left to the soft soap manufacturers or those who gather it for the sake of rendering and subsequent sale. Bone grease comes from the slaughter houses. The soft soaps that are made by factories who make a soap for silk or woolen cleaning are a very superior quality of soap, in no way resembling the laundry soft soaps.

Previous to 1875 the waste lyes from the soap factories were run into the sewers, or the gutter, whichever place was most convenient. Many chemists devoted much time to the study of the recovering of glycerine, which they knew was contained in those waste lyes. As a result of their efforts, many different schemes were patented; some of them for the treatment of the fatty materials and the recovery of their contained glycerine before their use in the soap kettle. These schemes were founded upon the use of such chemicals as muriate of zinc, which caused a decomposition of the fatty matters and the separation of the glycerine. Every soap maker who adopted this process found within a short while that soap resulting from the use of deglycerinized fats was not of as good quality as the soap made

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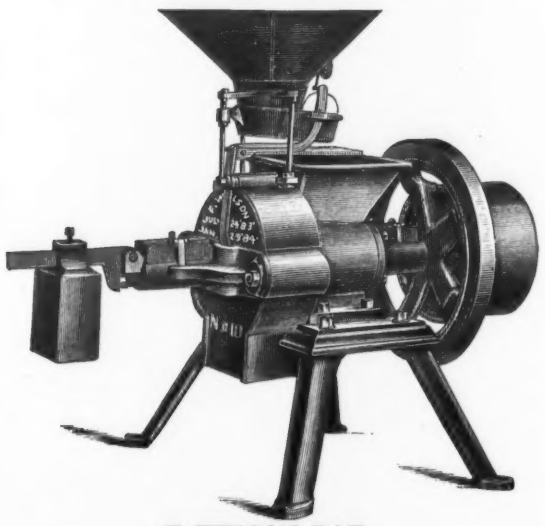

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from regular fats. Probably certain portions of the metallic salt remained in the soap kettle, and discolored the product, which caused it to break out in dark spots and blotches. Then the process of getting the glycerine from the waste lyes by ordinary evaporation became to be regarded as the only possible way of effecting the required result. For several years all large soap factories treated their waste lyes in this way, and sold their crude glycerine to the refiners. During the last ten years by the process of Jobbins & Van Ruymbeke almost all the factories are not only manufacturing crude glycerine, but they continue the process by distillation and filtration until "Refined" or "C. P." glycerine is produced.

The first soap maker of any prominence in New York city was J. Wager Hull, who manufactured soap in Old Hague street, just back of Harper Bros., Colgate & Co. and David S. Brown & Co. probably commenced at about the same time, but their prominence came several years later than Hull's. Back in the last century Ebenezer Caldwell began the manufacture of soap at 30 Catherine street, and in 1837 this factory was purchased by John Kirkman, and was occupied by him and his successors, Kirkman & Son, until they moved to their present larger works, at the corner of Bridge and Water streets, Brooklyn. The old Catherine street property, however, was occupied as a soap factory for fully a century.

The other old factories now in existence are C. W. Smith, 115 Elizabeth street and Enoch Morgan's Sons' Co., on West street, and among the other concerns that have been prominent here in the last thirty years are James Buchan and Charles S. Higgins. Of all the concerns named the Colgates and David S. Brown are the only ones making toilet soaps.

THE PAINT TRADE.

The early history of the paint trade in New York is closely interwoven with that of the oil, drug and chemical trades, Oils, naval stores and many of the heavier drugs and chemicals were so intimately connected with paints, especially in the years when these goods were all largely imported, that the wide enlargement of this market became necessary before there was a field for the distinct division of the trade that has existed for the past twenty years. But during the period covered by the records of the Reporter there have been few changes here in this direction, except perhaps such as have widened the separation of oils and paints. The establishment of wholesale drug houses on the constantly receding Western frontier has, however, largely maintained the connection between the several trades, the stock of the pioneer jobbing druggist in almost every instance being of a more general character than is carried after the growth of contributing territory is sufficient to sustain a separate oil or paint jobber. The prominent paint houses here twenty-five years ago included Christal Bros., Baxter, Bell & Co., Walter & Fielding, Webb, McLaughlin & Co., Seeley & Stevens and Hobbs & Hibbard, all of which have since ceased to exist. A few others have sprung up meantime, and some of them also have been wound up, while numerous changes are to be recorded in the names of those which have continued in business throughout that period. Among such changes may be noted, that of Anderson, Pierce & Co., to F. O. Pierce & Co., with their more recent consolidation with the Aquila Rich Co.; Wadsworth Bros. & Co., to Wadsworth, Martinez & Longman and later to Longman & Martinez; Jessup & Childs to C. M. Childs & Co.; Masury & Whitton, to John W. Masury & Co., and the consolidation of C. T. Raynolds & Co. and F. W. Devoe & Co., which had formerly been together as Raynolds & Devoe and Raynolds, Devoe & Pratt. The newer houses established here which have grown out of the older concerns, and the Western firms now prominent here which were either not in existence or but little known even locally, twenty-five years ago, are familiar to every one now in the trade.

The oldest manufacturers of colors in the city are Messrs. Tiemann & Co., and the present head of the house, Mr. Daniel F. Tiemann, is the Nestor of this important American industry. Mr. Tiemann has just passed his ninety-second birthday, and has been in the paint business for more than three-quarters of a century. His first business experience was with H. H. Schieffelin & Co., and his subsequent change from the drug business to the manufacture of paints came through the desire of his parents to keep him at home, he having been offered a good position in a Georgia drug house. Mr. Tiemann's father and uncles established their paint factory in 1807, and his own connection with it began about 1820, though a few years later he took the management, and for more than sixty years he was an active factor in the paint trade For many years this concern was the only one manufacturing colors here, and was by far the largest in the country. The other manufacturing houses took up this branch of the business gradually, as the extension of their jobbing trade naturally led them into making goods. It is not many years since the paint manufacturing for the whole country was done here and at Boston, Philadelphia and Baltimore. Pittsburgh and Cincinnati became white lead corroding centers a good many years ago, it is true, but even after there were corroders at several Western points the color trade was all located at the East, and it is within the recollection of those who are still active in the business and are not rated among the "old men" of the trade that New York sold paints and colors to all the Western States, supplying San Francisco, Portland and the entire Pacific coast by shipments by sail around the Horn or by the Pacific Mail steamers. The white lead was nearly all made here, although all of these goods were largely imported up to twenty years ago. Now and for a number of years past the West has manufactured very largely of paints and colors, and has shipped its surplus of these products to the East, not only largely stemming the Western flow of Eastern-made goods, but supplying no inconsiderable portion of the consumption in Eastern territory. One of the few articles in this line of trade still made almost exclusively at the East is putty.

From 1875 to 1885, and especially during the last five years of that period, the paint manufacture in the West increased so rapidly that it affected appreciably the business of Eastern manufacturers. It was no uncommon thing previous to 1880 to ship carloads of oil colors in small cans to Western jobbers. That day has gone by and the paint trade find themselves practically localized in the disposition of their products, so that the paint grinding business has since 1880 become largely a local business, and relatively very much limited.

The demand locally has, however, increased with the increase of population, and, as manufacturing in other branches has been spreading, it has made the New York market practically the fountain spring of raw material, more raw material probably being sent from here than from any other point It is noticeable at the present time that users of paint who have spent many years in the business are averse to any character of goods that are made ready for application, but it must also be noticed that goods ready for use must, in the very nature of things, be accepted as the most profitable and the most practicable for the consumers.

Reviewing the business for years past, it may be noticed that the paint trade has passed through three distinct epochs, the original one being when the dry material was sold to the painter, who with his stone and muller was obliged to grind by hand power for days the paint necessary for his particular piece of work. What painter to-day would be considered sane who would insist upon it that for the next house he was to paint he should prepare the goods in this fashion? Yet many in our trade will recall the days when painters even insisted that the grinding of goods in paste form, even white lead, was an encroachment upon their business. The increased demand for paints, however, and a growing appreciation of this form of enterprise soon found the painter accepting, and very much to his delight, the product of the factory, ground through mills which were run by steam power. Still, to-day there can be users of paint found who think that their safety in the purchase of goods still lies in getting their dry materials and converting them into a paint under their own supervision. They are in such a small minority, however, that they are not considered, and the large bulk of painters have willingly stepped one degree higher and cheerfully take from the manufacturer the goods in paste form. The coloring of lead and zinc paint, even in paste form, was looked upon as an invasion of the painters' work; yet any one in the trade within the last twenty years can recall the large amount of paint prepared in this shape and supplied by the trade, especially in the rural districts. The pioneer in this line of paint development has left his impress upon the trade as few men have. We refer to John W. Masury, who made a wonderful success in the introduction of railroad colors. He certainly benefited the craft and contributed to the institution of painting by this change, and opened up opportunities for the painter that he never dreamed of before by popularizing painting in rural districts as a necessity. For a number of years after the war, and until after 1870, the production of paint was confined chiefly to the manufacture of colors in oil and various grades of white lead, and also oxide of zinc. This latter pigment was made from American ore about 1852, and in largely increasing quantities every succeeding year. At one time there was some question as to whether oxide of zinc then also imported into this country in considerable quantities by the Baxters, who were large paint grinders) would supersede the use of white lead. It became almost a serious question, for the reason that the article was regarded as possessing some points of superiority over white lead. It was found that oxide of zinc retained its original brilliant white effect and was not affected by the gases so destructive to the color of white lead, and, in consequence, was eminently fitted for use on interiors, and indeed, for that matter, on exteriors, which at that time were commonly painted white, with the blinds painted green. The use of pure zinc, however, was not then destined to occupy the place it has since acquired because it was found a little more difficult to apply than white lead, and the painter could not, therefore, do work with it as easily and for that reason he condemned it as a pigment. Notwithstanding this, he afterward, from 1860 and even before to some extent, used it in half a dozen different grades of purity as pure white lead, for all of the various cheap grades of white lead were made then, as they are made now, with oxide of zinc and barytes. Painters condemned the use of oxide of zinc in its purity, but accepted it in its adulterated condition, and used it extensively from one end of the United States to the other during almost the entire period of the war and for many years thereafter. Everyone conversant with the trade during the period mentioned remembers Dolson, then one of the largest paint grinders in the United States, who operated two extensive paint factories and was engaged exclusively in the manufacture of his particular grade of paint branded "Pure White Lead," which, as near as it is needful to mention, was composed of about two-thirds oxide of zinc and one-third barytes. These white leads were known by many different brands, and sold in about every large village and all the towns and cities in the United States east of Iowa. The Dolson paints were unquestionably durable and the work done with them was very satisfactory, indeed, as all of the years succeeding have demonstrated.

The valuable qualities of zinc made it possible for Seeley & Stevens, about 1870, to largely market "The Averill Chemical Paint, ready for use." It was so great a departure from the established lines of paintmaking that none of the manufacturers would entertain a thought of making it. As a consequence, those who manufactured this kind of paint were, so to speak, "outsiders" and had the field.

The Averill people claimed some sort of patent on cans, or a combination of paint ready for use in sealed cans, and for years bluffed most of their competitors out of the field. As a matter of fact, however, they were long antedated, in this method of putting up paints by both D. F. Tiemann & Co. and Raynolds, Devoe & Pratt. The latter had these goods in their catalogue as far back as 1859, and although they never pushed them, some of their old packages, which were accidentally discovered by Mr. Drummond of F. W. Devoe & Co. in the store of a paint dealer down on Nantucket, are said to have served a good purpose for the defendants in one of the few Averill suits that ever came to trial. At the same time the Averill Co. is undoubtedly entitled to much credit for having given an impetus to the business, which has left an impress upon the entire paint industry. Later Wadsworth, Martinez & Longman and the succeeding firm of Longman & Martinez gave the business a wider scope, both in this country and in South America.

There are a number of very large firms now engaged in the manufacture of paints made ready for use, and many of these firms are enterprising manufacturers. Their aggressiveness in business, combined with skill in making their goods known, has made this class of goods an important factor in the paint industry. Taking into consideration the production of oxide of zinc in this country, plus the production of all of the colors entering into the manufacture of paints prepared for use, plus the oil used to manufacture, it will probably be found that the quantity made is quite nearly equal to the total quantity of carbonate of lead (white lead) produced in the country, and used for house painting.

The logic of events has forced paint and varnish manufacturers to change very much within the last thirty years in the manufacture and introduction of their goods, and unquestionably the future will demand still more changes. In the infancy of paint selling the manipulation of paint was considered a matter of small account, but the enormous consumption of paint and varnish has brought it to a point where these features have to be scientifically considered, and nothing left to "rule of thumb" or accident. There never was a time in the history of paint and varnish manufacture when the genius and science of it were so interesting, and when such good paint and such poor paint were manufactured, as to-day. The two extremes are present with us, and the user must separate the wheat from the chaff, but with all the emphasis that it is possible to add, no country ever produced such good products in the line of paints and varnish as are being produced by the manufacturers in the United States to-day, the pessimism of the average user to the contrary notwithstanding.

The consolidation of the white lead corroding interests into a single corporation, which was accomplished in 1888 and 1889, has proved of advantage to the industry by leading to economies which excessive competition would inevitably have forced upon the trade, but which could never have been accomplished by the individual concerns. It has also developed a measure of systematic enterprise in keeping lead products in the fore-front of the paint industry, which they stood in danger of losing to some extent through the methods that largely prevailed among the individual concerns, and their failure to fall in with the progress of events that was forcing changes in the manner of conducting the trade.

Contrasting the present with the past. Every feature of the paint business, in the manufacturing line, favors the consumer. There is nothing more apparent than this fact, when we are reminded that J. Lee Smith & Co., importers of paints, in their very early days, ground in their establishment, 300 pounds of burnt umber in oil, in ten-pound cans, and sold it for $150, just 50 cents per pound. Contrast this price with the present price of the article at wholesale; viz., 300 pounds at 8 cents per pound, $24., and in one-pound cans at that, and ground a 100 per cent. finer. The manufacture of paints from 1870 to the present time has probably increased about four to five times in output, in the value of the products, and the number of factories.

THE GLASS TRADE.

There have been a good many changes in the glass trade, both in the make-up of the concerns engaged in it and in the manner of conducting the business. Among the older houses will be recalled Crystal & Struthers, who, although in this line for but a few years, were a prominent concern in the paint trade, William Struthers being regarded at one time as one of the brightest men in the business. Schenck & Downing were a very large concern, and were succeeded by Theo. W. Morris & Co. D. A. Van Horn & Co. were succeeded by J. Fitzpatrick & Co., the senior member of which has been in the business since 1848. Holbrook Bros. succeeded Hopkins & Co. Platt & Boyd went out of business some years ago, as did also H. S. Ward & Co., while Heroy & Mariner are among the few houses that have continued for many years without change of name, the old house of Simon Bachi & Co. having dissolved at the close of 1896.

The amount of glass imported formerly was much greater than it is now, because American window glass was not made in such quantities nor of nearly so good a quality. The fact of the matter is that in the last five years the American window glass makers have improved in the manufacture of glass as to quality, flattening, etc., more than for sixty years before. At the present time the capacity for the manufacture of American glass is immensely in excess of the demands of the country. The duty and freight at the present time on imported glass

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averages 125 per cent. of the cost on the other side, and the result is that the imports are not near one-third what they formerly were. The great bulk of the glass imported into this country is manufactured in Belgium. We import from Glasgow what is known through the country as Scotch cathedral, and is the best article of that kind made in the world. The leading importers here carry from thirty to forty tints and colors in stock, and sell to all the lead glaziers through the country and large window makers.

The State of Indiana produces more glass than any other section of the country at the present time. They have natural gas there which enables them to produce glass at a very low cost, and this enables them to compete successfully with any other manufacturers on the globe as to cost and price. The fuel virtually costs them nothing. Last year the American window glass makers formed two associations, one known as the Pittsburgh Window Glass Company, and the other as the Indiana Window Glass Company, and they put their prices to the importers and jobbers at the cost of importation. After they put the prices as they did, they made a great deal of money. The prices they received enabled them to make it, if they were careful and competent to carry out their manufacture with economy and success.

The present demand for plate glass in this country is almost exclusively for silvering purposes. Plate glass made in this country to-day is good enough for any purpose, and there is not near enough made in this country to answer the demands of trade for plate, unless for silvering purposese; the consequence is that the importation of plate has almost entirely dwindled down to the demand required to supply mirrors to the country. There is a good deal made in this country that can be silvered, but not one-fifth of what is required for the trade of the country in mirrors.

THE CHEMICAL TRADE.

During the quarter of a century covering the life of the Oil, Paint and Drug Reporter vast changes have taken place in the various manufacturing departments of this country, and probably none of a more radical character than those which have occurred in the chemical industry. Twenty-five years ago the chemical industry of this country might almost be said to have been in its infancy. Very many articles which are now prominent in their importance, such as alkalis, were not made at all, and others, such as the heavy acids, have developed to an enormous extent. Like all other articles of manufacture, outputs have been increased vastly and selling prices have been decreased to a more than corresponding extent. Take, for instance the article oil of vitriol. Twenty-five years ago prices ruling were 2 to 2½c. a pound. On March 1, 1873, a circular was issued by one of the prominent manufacturers quoting oil of vitriol on that basis, showing that no change had come up to that time. September 4, 1873, a number of the more prominent manufacturers agreed upon a schedule for oil of vitriol, which placed its value at from 2½c. to 3½c. per pound, depending upon the quantity. To-day the price will range from 70c. to 90c. per 100 pounds for an article of fully as good quality as any made in those days. In this article of oil of vitriol, which is the basis of so many chemical products, during the last quarter of a century a large industry has grown up in strengths higher than 66 degrees, so that to-day it is quite possible to obtain it in large quantities for such purposes as high explosives, the manufacture of celluloid, etc., and a strength of almost 100 per cent. in mono-hydrated acid. This would not be particularly interesting if it were not for the fact that it is delivered constantly of this high grade in quantities of 100 to 150 tons. Invention in this direction has made it possible to improve the explosive industry immensely, and this itself is quite an interesting line for investigation. A number of years ago the oil of vitriol manufacturers realized the fact that no two had the same standard, every manufacturer having his own views of what constituted the strength of oil of vitriol. A convention was held, and it was finally decided that a standard, which has been employed for a number of years, be adopted, viz., that 66 degrees of oil of vitriol should contain 93½ per cent. of mono-hydrated sul acid; since that time the article has been produced by all of the manufacturers with a singular degree of uniformity. At the beginning of the quarter of a century alluded to the source of sulphur used in oil of vitriol was exclusively Sicilian brimstone. On Aug. 1, 1881, the first pyrites was burned at the Laurel Hill Chemical Works, and we believe this to have been the first time pyrites were successfully burned in this country. Some years before a low grade of pyrites had been burned at the Highland Works, but this experiment had resulted disastrously, and had to be abandoned. Of course, it is well known in England and on the Continent pyrites had been used considerably prior to the time mentioned above, but the date given shows the first successful use of pyrites in this country. About June, 1882, the entire plant of the Laurel Hill Works had been turned over to pyrites, and from that day to the present no brimstone has been burned at that plant. This example has beeen followed by many other of the manufacturing chemical concerns of the country, until at the present day pyrites is used almost exclusively in the manufacture of sulphuric acid in this country. Devices have been invented and improved for producing acid in this way, and as good quality as that made of brimstone, and in some cases it has been shown that acid made from pyrites is better. This shows a marked revolution in this important article during the last quarter of a century.

The method of transportation of oil of vitriol has also undergone a great revolution, and the old-fashioned carboy is now very largely displaced by tank cars and tank boats. The first delivery of sulphuric acid in bulk of which there is any record was made from the Laurel Hill Chemical Works to the Empire Oil Works, Dec. 9, 1879. It is a singular fact that it was a whole year before a second oil refiner could be induced to accept acid in bulk, the theory being that it would lose strength if stored in tanks. At the present time every consumer, if he can, even if he does not use two carloads of acid in a year, gets it in bulk. This change in the source of the raw material, as well as the change in the method of transportation, have had a great deal to do with lowering the prices from those ruling at the beginning of the period to those that now obtain. At the same time, the bulk transportation of acid opens markets which would not be otherwise reached, and it is not an uncommon thing for a manufacturer to ship acid in bulk at least 3,000 miles.

MURIATIC ACID.

The growth of this business has not been very marked the last few years, although it is vastly larger than it was twenty-five years ago. It is not a particularly important article, but note should be made of the fact that salt cake, a yb-product of its manufacture, has become quite an important article, as the glassmaking industry has increased in this country.

ALUM.

Twenty-five years ago alum was almost exclusively known as crystal alum, being almost entirely the potash or ammonia salt of alumina. Crystal alum was used in papermaking and in very many of the arts. This is a chemical, the use of which has been gradually dying out, and sales to-day are considerably less than they were ten years ago. The reason for this is the growth of sulphate of alumna without the potash or ammonia, which is now used exclusively by papermakers to the exclusion of crystal alum, also used largely by dyers, water filterers and others. The consumption of the sulphate of ammonia has grown a great deal during the last ten years, but, unfortunately for manufacturers, the prices have steadily declined until to-day it is not more than half as much as it was ten years ago—possibly, even five. The reason of this difficulty is because of its overproduction. The source of all aluminous compound produced in this country is almost exclusively bauxite, mined in a small region of Northwestern Georgia and Northeastern Alabama, within a few miles of Rome, Ga. A few years ago these deposits were unknown, and bauxite was all imported from Ireland or France.

SULPHATE COPPER OR BLUE VITRIOL.

This has been becoming more and more an important article of export, so that possibly one-half of the blue vitriol manufactured in the United States is now exported. As the United States produced last year 70 per cent. of all copper produced in the world, it is quite evident that any of the salts of copper can be produced here to as great advantage as elsewhere. Unfortunately, however, like alum, it has been overproduced, and the usual results of low prices has followed. Copper is 11½c. a pound to-day. Blue vitriol contains 25 4-10 per cent. of copper, and its price is 3¾ to 4c. a pound. When the cost of sulphuric acid, barrels, labor, etc., is considered, the margin will be seen to disappear. This state of affairs is likely to continue, as blue vitriol is a by-product in several very large works and is not an encouraging article for general manufacture.

The progress of the alkali industry has been greater than that of any other branch of the chemical business, because it had practically no footing here twenty years ago, and has since attained proportions which are little short of phenomenal. The statistical tables printed elsewhere in this issue show the imports of the sodas to-day to be about double what they were in 1872, and at the same time the domestic production of soda ash and the other salts used in manufacturing has reached an amount equal to the imports. In other words, the consumption of the alkalis in the United States has quadrupled in 25 years, and the domestic production supplies one-half the amount. These facts, when reduced to figures, show the domestic product to represent nearly $5,000,000, while the imports amount to nearly $4,000,000. The latter were at their height about 1883, before the domestic industry had fairly begun operations, but from that year on the influence of the home output has been perceptible upon the volume of imports, although the enormous demands of the consuming industries in 1891 were sufficient to bring the imports up to a higher point than had ever before been reached on the leading salts. The enormous growth of the consuming industries is well illustrated by these figures, and prominent among them are the manufacturers of glass, soap, paper and refined petroleum and cottonseed oils, all of which have expanded at a rapid rate.

The introduction of the Solvay process early in the '80s was the beginning of the development of the alkali manufacture, and the history of its progress, especially during the past five or ten years, has been written so often as to be thoroughly familiar to those who are interested in the trade. As yet the manufacture of bleaching powder has attained no commercial importance in the United States, and although the product has been made here to an extent which is said to demonstrate the practicability of establishing the industry, it has not yet been undertaken on a scale of any magnitude, and it is denied by many persons familiar with the subject that we possess at any point the combination of climatic and other conditions essential to success.

The greatest development for the future promises to result from the experimental work of the last two or three years in electrolysis. The cheap power which is to be furnished by the harnessing of Niagara Falls promises to do much toward extending the utilization of electricity, and in no line of manufacturing is this element likely to be of more consequence than in chemicals. Thus far the products of the electrolytic plants are not important in extent or value, but the possibilities are simply boundless. It is to this process rather than the old and dangerous method employed abroad, that those who are hopeful of the development of the manufacture of bleaching powder in this country are looking.

Bicarbonate of soda was the first of the sodas to be made on a scale of any consequence in this country, although caustic was made on a small scale at an early date, and has been a product of steadily growing importance. The manufacture of bicarbonate was first undertaken here fifty years ago by Mr. John Dwight, who, in referring recently to the early days of the industry, said: "I received 18 cents a pound for the first bicarbonate I sold, in the spring of '47, but that was an unnatural price. Westerly winds had kept the vesels out, and there was a need of bicarbonate of soda for the manufacture of seidlitz powders, and other purposes, which raised the prices up from 10 cents to 20 cents for English bicarbonate, and I happened to make my first at that very opportune moment. The usual price of bicarbonate in those days was about 10 cents a pound. We found it altogether impossible to introduce pure bicarbonate of soda to take the place of the old-fashioned saleratus, made from pearl ashes, for the reason that it was about twice the strength of the original, and we had no idea of the adulteration of the old-fashioned, which was only about one-half of its proper strength as used by the housekeepers. Two questions came up in regard to the mixture which would reduce soda saleratus to the strength of the old-fashioned pearl ash, whether we should use sal soda to make it taste better or clean, common salt, which would do no injury and have the desired result. We decided to do what we considered the square and honest thing, although it spoke against us more than we had hoped it would. We guaranteed our goods from the beginning to be 10 per cent. stronger than pure pearl ash saleratus, and we offered it on the market at 10 per cent. less price. I was a little surprised at the outcome. We were the first people in this country to put bicarbonate of soda in pound papers. B. T. Babbitt undertook to speculate at the time that soda went up from about 9 cents or 10 cents a pound to 20 cents, in the spring of '47. When looking over the price current, probably in which he saw that one month it was 20 cents and another month 9 cents, he thought he would make a speculation. He bought up about $30,000 worth, hoping to raise the price. The more he bought the less he could get for it, as the druggists supplied themselves by sending orders to England. We were manufacturing chemists, and did not feel as if we should put anything but its proper name on bicarbonate, although the old-fashioned name was super carbonate of soda. We commenced the manufacture of super carbonate as early as Babbitt put his out, and we tried to make the folks buy it under the true name, but they would not. Babbitt had the trade for a long time, but we had the credit of telling the truth, even if it wasn't understood."

THE ALKALI TRADE.

The changes in the personnel and methods of the houses handling heavy chemicals have been numerous during the past twenty-five years, but have been due rather to the concentration of interests abroad and the necessities for economy, than to the competition of the American product. In the earlier years of the Reporter's history, there were no combinations of chemical manufacturers abroad, and the various concerns were conducted quite independently, each one having an agent or a commission house on this side, to whom its goods were consigned. Among the large receivers of Liverpool and Newcastle chemicals were J. L. & D. S. Riker, H. & F. W. Meyer, H. J. Baker & Bro., Brautigam & Watson, Battelle & Renwick, Recknagel & Co., Edward Hill, Fowler, Crampton & Co., W. Cunningham & Son, and J. L. Thompson & Co. James Lee & Co. were the largest receivers of Glasgow chemicals, Col. Lee being credited with having been the first receiver of caustic and bleaching powder in this country. Edward Hill was agent for the Jarrow Chemical Company of Newcastle, and the Messrs. Meyer were receivers of the chemicals of Lee, Patterson & Co. and other Newcastle makers, in connection with their business as agents of a line of Newcastle sailing vessels. Buyers were at that time much more closely wedded to special brands than they are in these days, and each mark coming here had a certain number of customers, who would take nothing else. The business done by importers was very much more of a wholesale character than it is now, their sales being to the large dealers in the more important cities, by whom it was in turn distributed to the consuming industries. The competition existing among importers, and the character of their sales, created an opportunity which really amounted to an actual necessity for the employment of brokers, and many of the most conspicuous brokerage firms in the city at that time devoted their attention primarily to the chemical trade. Among these houses were Messrs. Wing & Evans, George W. Hubbard & Co., Davis, Wolt & Co., Fowler & Bell, Theodore Bartow & Sons, Babcock & Cox, Parsons & Pettit, Randal H. Green & Sons and J. Abecasis. While some of these brokers did not make chemicals a specialty, they all handled them more or less in connection with the dye stuffs or paper trades, with which they were directly identified. The busy months for the chemical broker were usually in the spring and fall, before the canals closed, although speculative activity sometimes continued through the winter months. In such times the season of special activity was when it was announced that a Newcastle vessel, for instance, with a large stock of chemicals, had put into some foreign port in distress. Such an announcement would be the signal for immediate speculative operations, and the brokers were active in buying at fluctuations which would now be regarded as simply paralyzing. There was less opportunity for speculation in the Liverpool goods, for the reason that the supply was greater, and it was also easier to order them out by cable for steamer ship-

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ment, even though steamer freights were higher than they are now. The disposition of speculative operators to occasionally take advantage of prolonged inactivity and quietly buy up stocks, resulted in occasional movements which not only lent an interest to the trade that is now for the most part lacking, but also kept the brokers busy. Mr. James Pyle, now of pearline fame, was in those days an important factor in the speculative movements in chemicals, his specialties being bi-carb. and sal soda. The narrowing of the channels through which chemicals are distributed has also lessened the opportunities for brokers, although they will doubtless always find more or less of a field in connection with this branch of trade.

THE REVOLUTION IN DYESTUFFS.

Twenty-five years ago the principal dyestuffs employed in the textile industry were logwood, indigo, madder, alizarine, cochineal, lack dye, archil, cudbear, fustic, barwood, Brazil wood and sanders wood.

At that time attention was being first directed to the use of artificial alizarine, in place of natural alizarine, produced from madder, which in a few years entirely replaced the natural product, on account of its lower relative cost, and its uniformity and advantage in application. This in spite of the fact that a patent in this country made the price here, $1.30 per lb. (although it paid no duty), while abroad it was selling for about 30 cents per lb. The patent was subsequently declared void by the Supreme Court, and the price reduced to 30 cents per lb. So great was the revolution that the French Government required the soldiers' trousers to be dyed with madder or alizarine made from it, in order to create to that extent a demand that might occupy the peasants of some districts, whose whole industry was raising madder.

What are now popularly known as the aniline dyes were then really aniline dyes, although now the term probably includes all dyes produced from coal tar.

One by one natural dyestuffs have been replaced by the artificial dyestuffs, cochineal and lac dye being replaced in wool dyeing by the azo scarlets, almost as completely as was natural alizarine by the artificial product, the azo scarlets producing results more satisfactory at vastly lower figures, resulting in great distress to those in South America who had grown cacti plantations for raising cochineal.

Logwood and indigo alone, of all the natural dyestuffs, remain products of any considerable importance, and when account is taken of the enormous increase in consumption by the multiplication of the textile productions, it will be seen that these products are not holding their own, as they show no corresponding increase, although in the case of logwood great changes and vast advances have been made in the product as it comes to the consumer. Twenty-five years ago the dyestuff was sold in chips, for the most part, and the coloring matter extracted by the dyer, who never succeeded in getting the entire coloring matter out, and had the additional trouble of dealing with a product that decomposed and changed its quality while it was on his hands and even in transit to the mill.

The Americans were the first to extract the coloring matter from the wood and sell extract in place of the chipped wood.

During the past twenty-five years a singular state of affairs has existed in this industry. The price of the stick wood has advanced and the quality has declined. The quality of the extracts has advanced, and the price has declined, thus hitting the extract manufacturer on all four sides, so to speak. The highest grade extracts of twenty-five, or even ten years ago, could scarcely be sold to-day at any figure, so great has been the improvement in the quality.

In the year 1886 the first artificial coloring matter for dyeing wool black was placed on the market, under the name of naphtol black, and has been followed by a number of other artificial blacks since that time, the quality and prices of which have been so acceptable to the consumers that both in wool and cotton dyeing they are making rapid inroads in the consumption of logwood. Naphtol black, which was put on the market at 75c. per pound, has been periodically reduced in price by the owners of the patent, till now it sells at 35c. per pound. It is confidently predicted that before many years logwood, the natural dyestuff of the largest present consumption, will, like madder and cochineal, give way to the artificial products. The artificial products now on the market produce better results than can be obtained from logwood, with greater facility in application, and if the reductions in the cost of manufacturing these artificial dyes are as great in the next five or ten years as they have been in the past five or ten years, it is difficult to see where logwood can be used at all. While this has been going on in logwood, which is used principally for blacks, the field of largest consumption, such natural dyestuffs as archil, and cudbear, barwood, brazil wood, sanders wood, and, to a less extent, fustic, have all been practically replaced by artificial colors of superior merits, lower costs, and greater simplicity of application.

Indigo has now rivals in all its branches of application. Indigo extract and indigotine can be replaced to advantage by colors from coal tar that are less fugitive and more economical to use.

In cotton dyeing indigo is giving way to coal tar dyes that are easier to apply, as fast to light, faster to washing, and as cheap to use. In wool dyeing indigo holds its own to better advantage, but here also, for many special purposes, it is giving place to the coal tar dyes.

While this state of affairs has been going on in dyestuffs, there has been a revolution in dyeing no less remarkable. The days of imperics have gone by. Exact chemical methods are practised in all large dye houses. Information which was formerly considered isoteric has been widely and freely distributed regarding the application and methods for determining the comparative value of dyestuffs.

The following abstract from the preface by Walter M. Gardner, of the Yorkshire College, Leeds, June, 1882, illustrates how astonishing even at that late day appeared to him the revolution above referred to. His remarks are as follows:

"The publication of this pamphlet (referring to 'Logwood and Its Use in Wool-Dyeing') at the present time, is due to the initiative of ——, Drysalters, etc., of New York, Boston, Philadelphia and Providence, U. S. A., who, with sagacity and enterprise, have in the same way already issued several works for gratuitous distribution to those engaged in the dyeing industry. The fact that Messrs. —— find it commercially possible to undertake a work of this character illustrates in a notable way how fast and how far we have traveled during the last twenty years, or even ten years, although the old idea of keeping things secret 'dies hard.'"

No history of dyestuffs, however brief, is in any way complete without something more definite on coal-tar dyes.

An account of the advancement made in the coal-tar dye industry within the past quarter century is practically a complete commercial history of this great branch of chemistry. Twenty-five years ago the only important coal-tar dyes upon the market were mauve, aurine, magenta, methyl blue, diphenylamine blue, water blue, alkali blue, aniline blue, methyl green, safronine, Hofman's violet and methyl violet. Benzyl violet and magdala red had just appeared, and artificial alizarine was being produced in small quantities. All of these bodies, with the exception of alizarine, belong to but two chemical groups—the triphenyl-methane group and the safranine group—and had been obtained by the oxidation and further treatment of aniline or its homologues. Chemists had not dreamed of the possibilities that lay dormant in the chemicals at hand. They were all working within the narrow confines of the field, paying no attention to the inviting fruits just beyond. The chemistry of the reaction was but little understood and hence the yields and purity of the products were unsatisfactory. The dyeing methods were crude and laborious, and the shades thus produced were dull and far from those desired. Although investigations into the theoretical conditions had been made for a number of years, it was not until about 1870 that the universities really appreciated the commercial importance of thorough investigations and extensions of this branch. All the energies of the German schools were now bent in this direction, supplemented by the work of the chemists of the English firms that had already placed the above mentioned colors upon the market. The result was almost instantaneous. Not only were the two known groups greatly enlarged, but entirely new departures were made. Each discovery opened the way to others, and the colors increased in number and usefulness with great rapidity.

The groups that received the most attention were, naturally, the tripnenylmethane groups. The method of producing magenta from toluidine aniline and arsenic acid found a commercial competitor in the method of Coupier, in which nitrobenzine is used. The decreased cost of this latter method soon caused a decided fall in the price of this then valuable color. The production of the acid dyeing magenta, by sulphonation of magenta, increased the consumption of the latter, and the principle of sulphonation here applied found application in many other cases, resulting in the production of many useful dyestuffs. New violets, greens, blues and reds followed until the possibilities of new reactions grew somewhat less, and the attention of the chemists diverged into other lines. The safranines were thoroughly investigated and resulted in the manufacture of indulines, which although known before, had received but little commercial attention. The neutral blues followed in 1882 and the idazines in 1888, from the works of Leopold Cassella & Co., by whom other more valuable safranine reds were placed upon the market within a few years. The purity of the shades of the various safranines when dyed upon mordanted cotton, made them of great use and value, and the consumption of these colors was very large until they were superseded by the direct dyeing reds, of which mention is made later.

The production of fluorescein by Baeyer, in 1871, and its subsequent bromination and formation of eosine by Caro, in 1874, opened an entirely new field, and resulted in the formation of a line of colors, that, for certain purposes, is still unsubstituted. The eosines thus formed were followed by erythosines, in 1876, when iodine was substituted for bromine, and the phloxines produced from dichloro-fluorescein and bromine, and rose bengal from dichlore fluorescein and iodine. A thorough investigation into the composition of these bodies by Gnehm, Nolting, Ceresole, Bayer and others resulted in the substitution of dimethyl or diethylamidophenol for the resorcine in the formation of fluorescein, and the bright red shades of rhodamine (1887), thus formed soon made them of great commercial interest. The beautiful fluorescent effect of dyeings made with these colors and their adaptability for silk dyeing and lake forming, has given them a place in commerce from which they have not been supplanted.

Caro's investigations upon nitrosodimethyl-aniline and Lauth's experiments with the oxidation of p-phenolene-diamine in the presence of sulphur resulted in the simultaneous discovery, in 1876, of methylene blue by Caro and of Lauth's violet by Lauth. Bernthsen's elaborate investigations proved the chemical relation between these two bodies, and opened the way for gallocyanine by Kochlin in 1881, the Thionine blues by Ulrich in 1885 and the new methylene blues by Hoffman and Weinberg, chemists employed by Cassella, in 1890. The neutral reds and neutral violets, bodies of somewhat simlar constitution, appeared in 1879.

Baeyer's classic investigations into the composition of indigo resulted, in 1880, in the artificial formation of this dye stuff. The method of its first formation from nitro-phenyl-propiolic acid forbid its commercial production, but later discoveries place its successful manufacture among the near possibilities. The substitution of indigo by other coal-tar blues will, however, rob the commercial formation of the vegetable dye of the greater portion of its financial value.

It had long been known that the purity of magenta depended upon the elimination of phosphine—a yellow coloring matter—which was produced as a by-product in the formation of magenta. Hoffman showed, in 1869, that this is an acridine body, and Oehler and Bender produced, in 1887 and 1889, the acridine yellows and oranges and benzoflavine.

Green and Rosenheck opened an entirely new group of colors when they discovered, in 1888, that the methylation of dihydro thio toluidine produced a product which they called Thioflavine T., dyeing mordanted cotton a clear greenish yellow, and the subsequent discovery of Rosenbeck, another of Cassella's chemists, that the sulphonation of this mordant-dyeing body produced a direct dyeing yellow—Thioflavine S.—was entirely unexpected and novel.

The changes that have been wrought in the alibarine group within the last twenty-five years are extremely interesting. In 1870 the only known member of this group was the alizarine red, and this was produced entirely from the madder plant. In 1869 its artificial production from the sulphonic acids of anthraquinove was noted by Graebe, Liebermann and Perkins, and its commercial production immediately undertaken by the last named. The interest thus awakened in this valuable coloring matter resulted in the almost complete extermination of the madder growing industry, as well as in the discovery of numerous other alizarine colors, as the blues, oranges, yellows, browns and reds.

Although azo-bodies had been known for some years, aniline yellow having been discovered in 1861 by Mene, and introduced into the markets in 1863 by Simpson, Maule & Nicholson, they still met with but a limited application, and it was not until 1879 that the first acid-dyeing azo color found its way into commerce, it having been discovered by Griess the previous year. This opened an era in the coal-tar colors that was most successful from the start. The number of combinations possible from the various amines and phenols was unlimited, and it was from this date that the manufacturing of coal-tar dyes commenced to assume the gigantic proportions that it now possesses. The brilliancy of the shades, the ease of the dyeing methods, the permanency of the results and the low cost of production caused the chemists to turn their energies in this direction.

The most interesting and valuable discovery made in this series of colors was the production of naphtol black, in 1885, by Hoffman and Weinberg. Within the last few years a number of mordant-dyeing azo colors possessing good fastness have been discovered.

The investigations into the reactions incident to the production of azo colors led to the discovery, first mentioned by Griess in 1884, that diamido bodies are capable of diazotization, and that, when combined with amines or phenols the resulting coloring matters possess the most valuable property of dyeing unmordanted cotton. This discovery was supplemented by Martius, who found in 1885 that the above reaction took place in two steps, one molecule of the amine of phenol combining first, and then the remaining molecule. He took advantage of this reaction and aded first one molecule of a certain amine or phenol, and when the combination was complete added another molecule of a different amine or phenol producing the so-called mixed tetrazo dyes. The value of these two discoveries cannot be over-estimated, and within the intervening ten years they have completely revolutionized the dyeing industry. The first color of this group, Congo Red 4 B, was rapidly followed by other direct dyeing colors of various shades. One of the most valuable discoveries in this connection was the production of a direct dyeing cotton black by Gans (of Leopold Cassella & Co.) in 1889. This was the first coal tar color producing black upon cotton, and its introduction marked a new era, as the blacks which have followed it have replaced logwood and are rapidly replacing aniline black for this purpose. Numerous additions have been made to this line of direct dyeing colors, until today it is possible to obtain any desired shade with the greatest ease. The many advantages and superior properties of these substantive dyes have caused their extended application, and have resulted in their adoption in the place of the adjective dyes at one time used so extensively.

The formation of azo colors upon the fibre, as in paranitraniline dyeing, and in the diazotization and developing of the Diamine and simlar colors, the oxidation of coloring matters upon the fibre with bluestone or chrome; the dyeing of colors and the subsequent lake formation with a metallic salt, and the many other methods now in use, are the natural results of the modern dyestuffs employed.

An idea of the extent and growth of this industry can be gained from the fact that impure magenta which sold for $100 per pound can now be purchased in a pure crystal form for 90 cents, and blue which brought $500 is now sold for $1. Last year Germany alone exported about 80,000,000 pounds of coal-tar dyes, at an estimated value of $25,000,000.

The coal-tar dye industry as we find it to-day is practically the result of the past twenty-five years—a growth which is probably unequalled in any other branch of science or of trade.

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THE WHOLESALE DRUG TRADE.

The changes that have occurred in the wholesale drug trade in the city of New York or elsewhere during the existence of the Reporter, have been only such as have been common to all other branches of trade. Beyond the changes which time naturally works among those engaged in any branch of trade during such a period, the general tendency has been to reduce the number of houses chiefly through the diversion of trade to other centers, a result that has been brought about by increased and more economical transportation facilities, and also by the growth of the country to an extent which has developed new jobbing centers, thus robbing the older distributing points of the business which formerly flowed to them. A glance over the list of most of those who were engaged in the drug and allied branches in 1871, as copied from the business directory of that date, will recall to the minds of the members of the trade many names which for a number of years have been scarcely spoken, except in reminiscence, so completely have the individuals passed out of the trade. The importers of drugs, who formerly constituted a distinct class, have absolutely ceased to exist as such, the business having been so far merged into that of jobbing that the houses which twenty-five years ago or more were exclusively jobbers have for a number of years past done a large share of their own importing, and have also been sellers of package goods to a large extent, while the few originally importing houses which have remained in trade have only done so by adopting more of the jobbing features and becoming, to a very much larger extent than formerly, distributers to all classes of buyers, excepting the smaller retail trade. This change has also dispensed quite largely with the services of brokers, who formerly constituted an important element in the drug trade. Of those which are ranked as jobbing houses which existed twenty-five years ago, at least twenty-two have gone out of business, leaving no successors, while the number of those remaining to-day without change of name is really but five, viz., McKesson & Robbins, O. H. Jadwin, Elmer & Amend, R. W. Robinson & Son and E. Fougera & Co., although the firm of Schieffelin & Co. has undergone no further change than the dropping of the initials of the late W. H. Schieffelin, who was then its head. The great extension of the field of manufacturing pharmacy has led to important changes in the methods of the business, but has added many more concerns than it has been the means of wiping out. One of the first houses in that line, however, and which was for many years conspicuous in the pharmaceutical business, namely, Tilden & Co., has practically gone out of business entirely within the period we are considering, while numerous others, larger than were ever dreamed of twenty-five years ago, have come into existence, and made for themselves a place which had not previously been known to exist. The effect of this form of distributing manufactured drugs to the retail trade has naturally concentrated the business to a considerable extent, and has in a measure been responsible for the reduction that has occurred in the ranks of the brokers and others who formerly served the vaster army of distributing houses. Aside from these features the trade has not been marked by any events of great moment. The organization of the Drug, Paint and Chemical Exchange in 1881 was an event which for a time exerted some influence upon the drug trade, but the interests involved in the business were not wide enough, nor were the opportunities for speculation sufficiently numerous to maintain such an institution. The exchange formally organized on July 13, 1881, at a meeting presided over by Col. F. W. Sterry, and of which L. H. Cress acted as secretary. The election of officers resulted in the choice of George M. Olcott as president, E. L. Molineux as vice-president, L. H. Cress secretary, I. S. Coffin treasurer, Edward Hill, W. S. Mersereau, John McKesson, Jr., Charles F. Sanborn J. Seaver Page, Francis E. Dodge and James R. Townsend as members of the Executive Committee; Julius W. Tiemann, John L. Riker and Lewis Morris as Arbitration Committee, and Charles S. Rutherford and Andrew B. Rogers, Jr., as inspectors of election. The first business session was held on Monday, July 25, 1881, and from that time on they were continued regularly for many months. A committee consisting of Messrs. Lewis Morris, Cortlandt St. John, George Dix, William M. Ebbitt and James A. Hatry was appointed a [illegible] later to formulate a plan governing a "call" of some of the leading drugs, which was to be held daily, and this committee reported on Oct. 26 a list of goods and minimum quantities to be dealt in under the "call," with the rules governing such transactions. These were adopted, and the first "call" was made on Monday Oct. 31, 1881, considerable business being done then, but after a few days' trial it was suspended for some weeks, when it was revived under somewhat modified rules and with a more restricted list of articles to be dealt in, and was continued for several months. It did not, however, prove a success, and the exchange itself became practically inoperative after an existence of less than two years. A more recent attempt at organization resulted in forming the Drug Trade Section of the New York Board of Trade and Transportation, which has now existed for more than five years, and has offered an opportunity for the trade to take combined action upon legislative and other matters in a way that has been of general benefit. The sub-organization of the jobbing druggists has been especially useful to that branch of the business, and other departments of the trade, through their special committees, have also accomplished considerable good. The most successful organization of the drug trade, however has been the National Wholesale Druggists' Association, which was formed in 1882, growing out of the Western Association that had been formed seven years earlier. This organization is referred to at so much length in the reminiscence and views of "an old drummer" which we print further on, that it is scarcely necessary to make more extended allusion to it in connection with the New York trade. The chronological list which we print elsewhere in this paper contains the names of many of those who were conspicuous in the business twenty-five years ago, and the recollection of whom must be recalled vividly by any attempt to review the history of the trade during that period. Prominent among those names are Edward H. Stabler, William Chrisfield, Phillip Schieffelin, Henry Haydock, Lewis Morris, John D. Dix, Daniel C. Robbins, John McKesson, William A. Gellately, R. J. Dodge, E. H. Marsh, W. H. Schieffelin and Wm. Henry Hall, all of whom have passed out of the trade in New York, while the list of those equally prominent in other sections of the country is almost as proportionately extended.

THE INTERIOR JOBBING DRUGGIST.

During the last Christmas holidays the editor of the Reporter met on Broadway an old-time Western "drummer," whose personal experience of the Western drug trade covered a very long period of years, and whose personal relations to the houses that have existed west of the Alleghanies since before the war were of such a character as to make his reminiscences not only very comprehensive but decidedly interesting. An explanation of what the Reporter was trying to do in this anniversary number enlisted the interest of the "old drummer" to an extent that finally induced him to accept an invitation to dinner and submit to a subsequent interview, upon the sole condition that his name should not be mentioned, as he is still going in and out among his old customers, and, although nothing that he might say would be intended to give offence, he did not wish to take the chance of being chided by any of them for any of his statements. So after dinner, and when the services of a stenographer had been called in, the old drummer proceeded to unravel as follows:

"Previous to the war the drug trade of the West was practically controlled by the colossal houses of New York city, most of whom have since passed away. The same may be said of some of the larger houses just west of the Alleghanies; for example, the city of Buffalo. Spencer & Bullymore conducted quite an extensive business up the chain of lakes. They have not been in existence for a quarter of a century. Next, the city of Pittsburgh; B. A. Fahnestock & Co. did a very extensive business down the Ohio River and throughout the Southern States. B. L. Fahnestock & Co., R. E. Sellers & Co. and Harris & Ewing were also prominent in the trade. All these houses are out of business, but the prestige of that city as a drug market has been ably maintained and controlled by George A. Kelly & Co., and those who contested with that firm for the field. I might next mention the city of Cincinnati. F. E. Suire & Co., a large house for its day, sold goods all over the State of Ohio, all the way up to Lake Erie, under Cleveland's nose and all through the South. R. McCready & Co., in the same city, were also one of the large firms. Both of these houses passed out of business years ago, besides seven other firms who have struck their colors since 1876.

"While these changes were taking place there sprung up in the West enterprising, energetic, wholesale druggists, who have since fairly acquired the right to be called the colossal wholesale druggists of America. They have wrested the trade away from the East. I may say there are now only two houses left in New York city who aggressively canvassed the Western trade twenty-five years ago, viz.: McKesson & Robbins and Schieffelin & Co. The old idea that the drug business is all profit has been pretty well exploded. As evidence of the fact, three wholesale drug houses have discontinued business during the past year in the State of New York—Hubbard Drug Co, Buffalo; Fonda Drug Co., Albany, and Tarrant & Co of New York. Evidently, the wholesale drug business is not all profit and the weeding-out process has not yet ceased. The truth is there is practically no margin left for lack of experience, lack of capital and absence of Dutch economy. Losing sight of either of these factors is sure to wipe out all profit, and disaster will surely follow, if all three do not exist.

"Immediately after the war, following that era of prosperity, numerous drug houses sprung up in the West. The majority have survived; a few have succumbed because of the reasons just mentione. The experience of numerous Western jobbers has clearly demonstrated the fact that a medium wholesale drug business can be conducted more economically and more successfully than a large wholesale drug business, the old contrary theory having been thoroughly exploded. Wholesale druggists, say such as you will find in Pittsburgh, Cleveland, Toledo and Detroit and other cities of that size, can make more net profit on capital invested than the colossal houses of Chicago, St. Louis or New York. The wholesale drug business of the various cities of the West can only control profitably the business in the territory that is naturally tributary to each city, and the adoption of the contract system has very materially aided that fact. Proprietary articles now constitute fully one-half of the sales of the wholesale drug business, and, as all these goods are delivered to all buyers, it places every little jobber on a strong footing to command the trade in his naturally tributary territory. It makes the large wholesale druggist powerless to wrest the trade from the smaller wholesale druggist.

"About the close or during the war Chicago and St. Louis sprung into great prominence as colossal drug markets. The Chicago patronage has been considerably divided up among several very strong and well-managed firms. The St. Louis trade has been confined more to two or three houses, whilst the trade in St. Paul has been held well in hand by a single firm, although the immense trade of the Northwest has offered a field for a progressive house to grow up at Minneapolis, of which ex-President Eliel is the chief. In connection with this house in St. Paul I might mention that its history, or that of its founder, reads almost like a romance. About thirty-five years ago there rode forth from the East a consumptive young man, who, it was said, had only a few months to live, in search of health. He rode on and on, following the setting sun, and finally pitched his tent in St. Paul, where now may be seen as a result the greatest wholesale drug house of the Northwest, still managed by the yet very-much-alive young man, Daniel R. Noyes, who started in quest of health, and found it, as well as a fortune.

"Can I recall other incidents? Well, here goes. In 1847, C. F. G. Meyer and his brother left the "Vaterland" in search of a new world. They landed at New Orleans and steamed up the Mississippi River, on their way to the interior, and a few days later may have been seen, in the absence of railways, tramping into Fort Wayne with all their earthly goods in a little pack on their backs. To-day they hold, perhaps, the most envied position in the drug trade of this country, all created by industry, economy and a standard of honesty and fairness seldom to be met with in commercial pursuits. C. F. G. Meyer carried the spirit of the Golden Rule into his daily business. Two or three years after C. F. G. Meyer arrived at Fort Wayne he was employed as an apprentice in the drug business, and after a short interval he was the proprietor of a store, and continued to lay one brick upon another until the proud structure in St. Louis was completed. In order to enter a large field of operations Meyer Bros. & Co. opened a house in St. Louis at a time where there was already established a most powerful competitor, of which the late James Richardson was the head. James Richardson in the drug trade was a very prominent and conspicuous figure. He was a man of sterling qualities and a natural orator, one who would have distinguished himself had he been trained for the bar or political life. It was not his good fortune to have been given educational facilities in early youth. His early days were spent as a workman at stone-cutting and dressing in New England. He finally embarked in the grocery business in the city of Pittsburgh, and from there into the wholesale drug business in the city of St. Louis. The great house that was reared under his immediate management is certainly evidence of his grand ability. His house at one time did the largest business of any drug jobbing firm in the United States. The Richardson house, as we all know, passed away in a single night, and, unlike old Phoenix, never rose from its ashes, but did very much better in pocketing a huge roll of fire insurance cash. It was the cleanest closing out of a drug stock on record. The next figure to bob up in my mind is Daniel Meyers. He began his business career as a newsboy. I used to see him about forty years ago, a cheery, hopeful, hustling newsboy on the railway from Cleveland to Columbus. A few years later I called on a new firm in Cleveland—Benton, Meyers & Canfield—and to my surprise there was the newsboy doing all the buying and all the selling for the firm. I must mention him as one who always found time to hear what a traveling man had to offer. Traveling salesmen receive so many uncalled-for snubs from snob buyers they will ever cherish one like Daniel Meyers, who always treated all comers with cordial kindness. I will place him second to none as an all-around wholesale druggist.

"Among the conspicuous characters in Western trade, and one that as long as the present generation of wholesale druggists lasts will be remembered with considerable pleasure, was the late Theodore H. Hinchman of Detroit, who established one of the first wholesale drug stores west of the Alleghanies. But few thoroughly understood and knew him, and he had to be well known to be understood properly. To many he seemed ascetic and severe and void of humor, but to those who knew him he was a veritable Artemus Ward. He had a wonderful appreciation of wit and humor, and in the conduct of his business and his business career from beginning to end it was one of truthfulness and sterling integrity. His example was one well worthy the emulation of the entire trade.

"The trade in Chicago had a great era of prosperity during the war and a few years after the close of the war. Some of the firms that were prominent during the war have since gone out of existence—J. H. Reed & Co., Tallman & King and Hurlbut & Co.—and numerous changes among other houses. Perhaps the most prominent figure in the trade at the close of the war was the late Henry W. Fuller. Of the prominent houses there now remain the Fuller & Fuller house, Lord, Owen & Co., Peter Van Schaack & Sons, Robert Stevenson & Co. and Morrison, Plummer & Co. In this connection it is a fact worthy of note, because not known to many of the trade, that O. F. Fuller, the head of the Fuller & Fuller house, was not a relative of his former partner, Henry W. Fuller. The latter, while a man of great ability, was better qualified for a professional career than for mercantile life. O. F. Fuller is the real architect of that house, and the proud position it holds in the trade is due very largely to his years of close attention to affairs, combined with a grand business capacity.

"Milwaukee, which at one time was quite a prominent distributing point for drugs, has been considerably hemmed in by the growth of the houses that have sprung up in St. Paul, Minneapolis, Grand Rapids and La Crosse, further demonstrating the theory that local drug houses can compete successfully against the larger markets. Active progressive houses have also sprung up in Kansas City, Omaha, Denver, Atchison, St. Joe, Leavenworth, Lincoln, Salt Lake, and in the Southwest at Dallas, Galveston, Houston, Waco, San Antonio, Fort Worth, etc."

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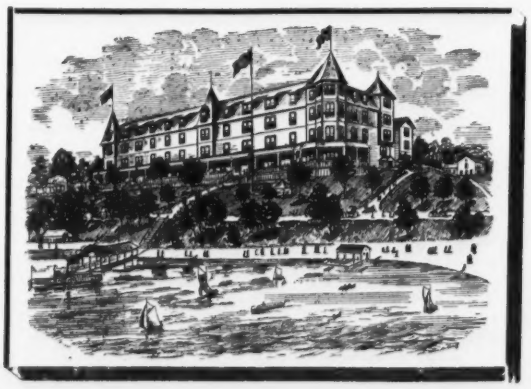

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"How does the quality of goods sold by the wholesale drug trade compare with the quality sold thirty years ago?"

"Well, there is almost as much difference as between day and night. To-day the trade, retail and wholesale, are very intelligent as to the quality of drugs and chemicals, and as a result of the formation of the Western Druggists' Association, and of local drug exchanges throughout the West, as well as the organization of State Pharmaceutical Societies throughout the country, a very much higher standard of commercial honesty prevails, and as a further result, to-day there is scarcely a wholesaler to be found who does not take special pains to supply his patrons with the very highest standard of drugs that he is able to obtain. To-day sophistication and adulteration have now moved so far West that they must be tumbling over themselves in the icebergs of Alaska. Now of course there are exceptions to this rule, as there are exceptions to all rules. The most stringent legislation against crime does not wholly abolish crime, but it may be said in this connection, and I desire to emphasize that fact, that the wholesale druggists in the Western country who have forged to the front, and who have been the most successful, are the firms that have rigidly adhered to the policy of filling orders only with the best quality of drugs to be obtained.

"How many millionaires do I know that were created as a result of conducting a jobbing drug business?

"Well, there are none to be found West of the Alleghanies, whilst every other commercial pursuit that I can think of numbers its millionaires, though with less ability and less capital to begin with.

THE N. W. D. A.

"What is my recollection of the origin of the Western Wholesale Druggists' Association?

"Well, as clearly as I can remember, about February, 1876, James S. Burdsall of Cincinnati organized a local drug exchange for the purpose of creating a better feeling and comparing notes for the betterment of the trade. Afterward circulars were issued to the entire Western drug trade, resulting in the trade meeting at Indianapolis in March, 1876. The platform of the local drug exchange of Cincinnati, written by Mr. Burdsall, was adopted verbatim by the Western Wholesale Druggists Association, and has since been perpetuated by the present N. W. D. A. A great mistake in diplomacy is thought by many of the old-timers at the West to have been made at this meeting in not electing the late Henry W. Fuller as president of the association. There always has been, as you know, a good deal of rivalry between Chicago and St. Louis, and in this particular case there was an amount of personal feeling entertained which many people believe largely influenced Mr. Fuller's subsequent action. Before the election of a president Mr. Fuller so far showed himself to be in accord with the objects of the meeting as to offer a resolution of thanks to the Cincinnati jobbers for inaugurating the movement that had resulted in the organization of the Western Druggists' Association, but later on he withdrew from the meeting, and before doing so arrayed himself against the object and especially against the proposed contract plan, which he attacked as unmercantile, in contravention with the laws of trade, and as illegal because attempting to restrict the freedom of trade and opposed to the inexorable laws of supply and demand, which he maintained must govern prices on all articles of merchandise. How far this apparent change of opinion was influenced by personal pique of course nobody ever knew, but I give the instance simply as a bit of gossip which has been recalled a good many times by different people in the trade. In this connection it has also been frequently remarked that the opinion of Mr. Fuller concerning the legality of the rebate plan was in strong contrast to that afterward rendered by his brother, Chief Justice Fuller of the United States Supreme Court, in the case brought against J. D. Park & Sons for violating their contract governing the sale of Wistar's Wild Cherry Balsam. In that decision, which was against Park & Sons, Chief Justice Fuller said that 'the owners of a proprietary article had the right to prevent competition between purchasers, and that purchasers were entitled to such protection as was reasonably necessary for their benefit.' I believe those were almost his exact words.

"It is quite remarkable indeed that this legal bulwark shielding the trade and proprietors was erected by John D. Park & Son, and that Chief Justice Fuller should render an opinion so diametrically opposite to the position taken by his brother.

"As an amusing incident in connection with the position which John D. Park & Sons have occupied toward the N. W. D. A. I recall a cartoon issued by them, I think, in 1882, which I will send you if you care to reproduce it in this connection (the cartoon is reproduced herewith, Editor O. P. & D. R.) This was quite funny at the time it was issued, but it is even more amusing now to note how positions have changed, and how the animal outside of the fence now should more properly be labeled with the initials of the Cincinnati concern, which has appealed to the courts to help it procure a share of the fruits of the field without obeying the rules of the proprietor.

"Trifling progress was made by the Western Wholesale Druggists' Association to move the Eastern proprietors to adopt a system for the sale of their articles that would insure a profit to the jobber, until the year following the meeting in Cincinnati in 1881, when the chairmanship of the Proprietary Committee was accepted by Daniel Meyers, of the firm of Benton, Meyers & Co., with the distinct understanding that he might chose his associates and follow out his own plan in his efforts to bring about

"OUR CONTRACT FIELD WHICH IS NOW RIPENING.

WE ARE, AND HAVE BEEN HUNGRY TO TASTE SOME OF ITS FRUITS."
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OIL, PAINT AND DRUG REPORTER, JUNE 21.

the desired result. The largest buyers of proprietary articles in the West were selected as associates on that committee—James Richardson, C. F. G. Meyer St. Louis; Thomas Lord, Chicago; W. A. Robinson, Louisville; George A. Kelly, Pittsburgh. The foregoing committee on a certain day were called together to meet in Cleveland, prepared to spend several weeks if necessary visiting the proprietors of the East. Such an array of earnest men and largest customers were irresistible, and as a result almost a complete sweep was made, the trade falling into line and adopting the contract system for the sale of their articles.

"Eastern jobbers of New York, Boston, Philadelphia, all became impressed with this new system of handling proprietary goods, and without exception gave it their hearty support and indorsement.

"In connection with this tour of the East, it will be interesting to know that as a result of the personal solicitation of Daniel Meyers, the jobbers of Boston, for the first time in their history, met face to face in a room in the Parker House.

"A Boston jobber relates the following incident about that meeting. The Western Rebate Committee came there to convert Boston jobbers to their new system of handling proprietary goods and to show the advantage of local drug exchanges and harmony among competitors. The Boston jobber said that Mr. Weeks would not attend such a meeting, but Meyers insisted that he would, because he had given his word. There we all sat in a room as glum as a lot of owls waiting for Mr. Weeks. We thought we had the laugh on Meyers, when last of all came Mr. Weeks also. He at a glance sized up the tired feeling of our Western friends and the needs of such a meeting and said to that well-known figure in the Boston trade, and one whom all highly esteemed and loved, the late Solomon Carter: "Carter, this seems to be a very dry meeting." "Uncle Solomon" agreed with this proposition, and at once made his exit from the room, soon returning followed with a waiter and several bottles on ice. It is useless to add that here was a generous flow of soul, and all became harmonious. That was the origin of the New England Drug Exchange, which, some years later, at one of their annual banquets, elected Daniel Meyers as an honorary member, and introduced him on that occasion as the Father of the New England Drug Exchange.

"The last annual meeting of the Western Wholesale Druggists Association was held in Cleveland in November, 1882. That meeting was largely attended by the representatives of the East, and at the request of the East the name of the association was changed to its present name—the National Wholesale Druggists' Association.

"I very vividly recall the first meeting of the N. W. D. A in the city of New York in 1883. It was the first time in the history of this country that the drug trade of the United States met face to face in a convention or at a banquet table.

"Say, Mr. Peters, do you recall what the Governor of South Carolina wired to the Governor of North Carolina during the war?"

"'Yes.'

"'Well, yellow label, please.'

"That Delmonico dinner was never excelled. It can be truthfully said of the managers of that entertainment that they were in perfect accord with the poet who, many years before, wrote:

"The turnpike road to men's hearts I find
Is through their stomachs, or I mistake mankind."

"At just this moment three conspicuous speakers at that banquet rise up before me. The late Daniel C. Robbins delivered an able and interesting speech, lauding the glory and greatness of the East. He was looked upon by the West as the drug lion of New York. He was followed by the late James Richardson, who typically represented the West, and in a most able and humorous response punctured some roseate bubbles that Mr. Robbins had pictured as natural advantages of the East. The West were justly proud, and rightly dubbed him the "Old Roman" of the Western druggists.

"The humorous speech made by Judge Noah Davis was received with roof-raising laughter. Why some of my Western friends are still recalling and laughing over some of the fifth-rib tickling funny sayings Judge Davis got off. I tell you "that's the stuff" the overworked wholesale druggists need at their annual banquet board.

"What in my opinion called the Western Association into existence?

"Why, the patent medicine question, pure and simple. The trade at that time were all handling patent medicines at just about 2 or 3 per cent. profit, while the expense of conducting business at that time was 8 to 10 per cent. Something had to be done, and something finally was done, as we all know, but they builded better than they knew. It is commonly stated that the jobber handles only such goods of a proprietary nature as he has actual demand for, and those he must sell, and it is therefore assumed that he is not in a position to render to the proprietor 'quid pro quo' for whatever increase of profits the proprietor may be induced to allow him.

"It must be conceded by all familiar with the trade that the jobber is indispensable to the proprietor, for the simple reason that the small retailer has tremendously increased, especially in large cities, who buys proprietary articles by the quarter-dozen almost weekly. The proprietor would be utterly powerless to supply this demand without the distributing facilities possessed by the jobber. He does all this work for the very small sum of about 10 per cent., which is not sufficient to cover the actual expense of doing bsuiness. About a year ago a certain proprietor, in order to place himself in direct touch with the retailers and in order to save the jobber's margin, opened a depot in New York city, and began the distribution of his proprietary goods direct to the retailer. He soon discovered that it cost a great deal more than under the old system of paying the jobber even 15 per cent. profit for distributing his goods. If other proprietors would try this experiment, there would be less growling and fault-finding with the 'unreasonable' jobber, who asks for sufficient profit to cover the actual expense of doing business. The fact is, owners of proprietary articles may be very expert and able in preparing their medicines and creating a demand by advertising, but in general business methods that should govern in their relations with the jobber and retailer some of them display the most lamentable want of common sense business knowledge.

"The contract system as a system is all right. It was devised expressly to insure a small profit to the jobber; it was never designed for the purpose of enabling a few cutters to get their supply cheaper and cut further. The Western jobbers, after a tremendous lot of labor and expense, brought the system into force. When J. C. Ayer & Co. adopted the system they agreed to pay jobbers 10 per cent. for distributing their medicines. They have annually paid from their own pocket over $50,000. They never intended any part of that compensation to go to cutters to aid them to cut still further to the injury of both retailer, jobber and proprietor. The only trouble with the system is it has not been rigidly enforced without fear or favor.

"The position of the retail druggists is quite an unfortunate and serious one, and has not a very promising outlook. The cutting of prices in the large cities and the handling of proprietary medicines and toilet articles by the department stores have almost deprived the retail druggist of his share of that business. The cut-rate stores certainly not only injure the large majority of retailers, but at the same time they are also a great damage to the proprietors, for the simple reason the majority of cutters simply sell what is asked for, unless they can work off substitutes, and take no interest whatever in the distribution of almanacs or advertising matter. They take no interest whatever in promoting the interest of the legitimae proprietor. It is certainly very much better for a proprietor to have 100 retailers distributing his goods and carrying a stock on their shelves and distributing his advertising matter, than to have the business controlled by say a few cutters, and thus alienating the great army of small retailers. Proprietors seem to be remarkably blind to this fact, and lack the foresight, courage and honesty to turn down the small fraction of cutters and keep in close touch with the vast number of retail distributors. Both retailere and jobber are indispensable factors in the distribution of proprietary goods, and the contention that now exists between the retailer, proprietor and jobber will never cease until some equitable adjustment is arrived at."

"What is your recollection of the firms who controlled the patent medicine business and the methods in vogue before the contract system was thought of?"

"I would name three persons who in their day were the conspicuous patent medicine jobbers. In the West, John D. Park, Cincinnati, and in New York Demas Barnes and J. F. Henry, all deceased. Right now let me say there are

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still living four of the old-time typical patent medicine drummers, Brent Goode, Pete Lance, Frank Henry and Ed Wells. They can answer your query, and their reminiscences of the trade would be very interesting. It seems like fifty years ago when I first met Pete Lance and Brent Goode on the road."

"Do I think the Druggists' Association has resulted in substantial benefit to the trade?

"Most decidedly it has. Even if it had not advanced the financial interests of the trade, it certainly has accomplished the essence of the original platform. It has 'created a permanent social feeling,' it has to a large degree 'obliterated distrust and jealousies.' It has resulted in the organization of local drug exchanges throughout the country, and by that means 'excessive competition and unmercantile practices' and various other evils that existed in the trade have been largely removed. The organization of these local exchanges and the generation of confidence among competitors and the general observance of the contract system without doubt has materially improved the condition of the wholesale drug trade in the West. To the contract system it owes in a large measure its prosperity for the past few years. As a result of the efforts of the National Drug Association it can scarcely be expected that the millenium would follow, but it is a fact the generation of brotherly feeling among competitors has been such that the lion and the lamb do lie down together without getting the lamb inside the lion.

"The fact is, not one in the trade could attend the meetings of the local drug exchanges and the annual meetings of the National Association without being influenced for the good of the trade. Contact with our fellow men and competitors in trade is bound to broaden one and give one more liberal views and result in the elevation of the general tone and morale of the business.

"Do I think the N. W. D. A. is disintegrating?

"Not a bit of it—not at all. Nothing makes a people so strong and united as an attack from the outside or rebellion within. The Park litigation may be called the attack from the outside, and the trade well know the rebels and spys in their own camp and the weak-kneed, double-shuffling among proprietors. I predict that the N. W. D. A. will emerge from all its present troubles, the strongest commercial organization this country or any other has ever seen."

TOTAL IMPORTS INTO THE UNITED STATES.

For the Fiscal Years ended June 30th, 1872 to 1896 inclusive.

	—Acid Acetic.—		—Acid Boracic.—		—Acid Carbolic.—		—Acid Citric.—	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	282	99	1,103,974	191,575	.....	30,350	181,904	114,283
1873	386	110	1,222,006	255,186	291,276	47,656	226,664	163,333
1874	195	82	233,955	52,752	70,132	35,231	91,789	83,174
1875	754	142	41,742	6,280	58,072	37,046	30,890	30,438
1876	3,145	680	137,518	15,771	52,987	23,385	37,331	26,486
1877	.....	.....	107,468	11,231	62,637	25,378	44,291	28,403
1878	2,707	279	22,839	651	68,000	25,453	27,017	15,876
1879	7,205	580	36,000	916	116,182	38,470	6,555	3,867
1880	20,693	2,111	243,723	18,473	133,910	33,876	56,493	25,331
1881	4,223	942	187,053	15,771	115,691	48,691	38,983	19,750
1882	3,520	687	536,335	71,343	178,842	42,237	48,531	23,121
1883	3,996	490	4,334,432	580,171	1,394,603	46,601	156,576	73,054
1884	3,290	642	44,512	4,494	177,395	23,198	78,762	33,821
1885	15,469	2,005	48,517	4,035	461,548	52,288	74,231	26,924
1886	3,256	477	430,055	26,238	385,188	47,195	97,985	42,502
1887	19,144	2,164	376,184	19,885	351,825	67,470	150,471	64,208
1888	18,429	2,474	487,777	26,394	521,553	132,882	115,450	45,698
1889	19,629	2,111	676,736	36,814	380,690	82,931	137,404	47,734
1890	13,266	2,152	867,802	43,967	522,237	102,382	90,320	27,857
1891	10,946	1,036	666,765	41,019	1,140,924	134,234	45,197	15,482
1892	12,280	2,302	701,625	39,418	4,564,054	90,271	80,034	27,461
1893	18,421	2,795	771,775	40,568	1,411,018	135,595	13,315	4,634
1894	22,244	3,959	292,990	19,282	386,289	45,847	5,502	1,810
1895	92,889	8,938	925,158	42,056	694,301	66,239	8,895	2,480
1896	152,223	13,143	555,769	21,899	966,509	93,061	39,671	12,521

	—Acid, Oxalic.—		—Acid, Salicylic.—		—Acid, Tartaric.—		—Albumen.—		—Alizarine.—	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	780,004	141,478	.....	.....	131,180	39,126	194,278	.....	.....	.....
1873	590,266	121,205	.....	.....	14,164	5,309	179,043	.....	.....	.....
1874	640,912	97,622	.....	.....	2,673	1,055	186,977	.....	.....	.....
1875	601,732	82,758	.....	.....	403	176	651,958	191,201	139,124	
1876	480,133	52,821	.....	.....	2	1	132,632	549,892	337,985	
1877	654,999	65,178	.....	.....	1,374	569	57,965	1,226,626	525,659	
1878	602,240	56,828	.....	.....	183	92	61,573	1,659,772	501,460	
1879	798,296	68,300	.....	.....	108	42	228,970	1,903,313	542,826	
1880	1,162,285	102,395	.....	.....	4	1	349,498	1,438,227	682,498	
1881	833,407	69,908	.....	.....	64	33	215,555	898,539	449,244	
1882	861,485	97,729	.....	.....	9	5	160,256	952,556	440,181	
1883	1,278,442	150,577	.....	.....	2,312	582	65,024	743,521	340,571	
1884	1,371,842	145,392	.....	.....	822	301	98,913	Balance under Alizarine and Alizarine Dyes.		
1885	1,371,030	137,137	.....	.....	397	81	94,526			
1886	1,488,539	106,609	.....	.....	7	4	107,893			
1887	1,865,878	129,149	.....	.....	515	181	102,215			
1888	1,387,527	100,831	.....	.....	275	104	114,594			
1889	1,851,682	142,757	.....	.....	1,046	343	171,191			
1890	1,973,050	139,676	.....	.....	75	33	139,376			
1891	2,743,222	200,590	.....	.....	1,511	468	114,836			
1892	3,209,940	150,530	.....	.....	10	5	111,265			
1893	2,464,443	143,194	206,027	254,022	130	40	197,599			
1894	2,783,786	159,026	252,332	231,946	113	32	157,479			
1895	2,889,513	189,506	196,974	140,197	355	97	200,034			
1896	3,164,969	279,630	335,354	138,013	212	66	309,146			

	Alum, Alumnia, etc.		Ambergris.		Ammonia Carbonate.		Ammonia Muriate.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	3,996,826	64,465	...	1,328	635,036	67,724	867,684	74,044
1873	4,218,621	66,243	...	1,110	790,285	104,589	676,761	64,016
1874	4,063,588	67,913	...	4,046	653,048	90,527	783,504	72,644
1875	6,951,396	112,516	...	5,217	680,345	93,812	658,724	58,324
1876	7,066,735	103,152	...	1,700	523,798	63,463	766,135	68,679
1877	8,259,175	112,275	...	694	587,452	62,244	783,045	66,413
1878	8,645,248	107,394	...	93	368,727	42,077	771,707	65,683
1879	5,961,057	65,708	...	3,215	375,375	49,655	851,148	75,594
1880	2,112,570	23,435	...	....	433,833	58,637	1,067,245	108,822
1881	2,086,950	22,331	...	55	315,537	42,363	1,281,867	107,976
1882	2,481,188	29,939	...	5,408	506,579	64,160	1,439,437	118,954
1883	1,695,651	21,125	...	2,715	571,708	70,086	1,878,225	136,023
1884	1,461,041	19,497	18	4,015	658,646	74,213	1,836,260	150,954
1885	2,213,920	34,707	47	5,685	449,211	41,861	1,443,201	105,782
1886	2,070,125	35,343	101	1,673	622,188	59,362	1,699,531	103,716
1887	3,687,255	54,008	23	2,649	980,208	64,832	2,196,483	110,531
1888	6,384,760	82,064	93	6,774	675,682	40,867	2,406,969	127,558
1889	6,212,395	66,557	437	5,850	656,014	39,937	2,381,527	125,934
1890	6,822,035	94,043	50	4,454	804,621	54,297	3,130,830	173,297
1891	4,652,985	58,864	71	3,731	912,885	62,293	3,609,583	195,078
1892	4,140,916	59,336	6	1,288	490,699	32,519	3,878,073	203,672
1893	4,572,923	73,806	26	6,667	551,824	36,352	4,217,025	208,068
1894	1,838,728	30,832	37	5,112	527,339	36,822	2,770,505	147,010
1895	2,983,682	46,815	157	28,696	871,071	47,427	4,690,323	247,482
1896	5,525,825	86,372	261	3,378	643,621	40,371	5,338,296	283,329

	Ammonia Sulphate		Aniline Arseniate.		Aniline Salts.	Annatto.		Archil.
	Lbs.	Dollars.	Lbs.	Dollars.	Dollars.	Lbs.	Dollars.	Dollars.
1872	463,386	32,501	....	....	....	336,048	35,704	Included in Cudbear.
1873	427,707	28,730	....	11,263	....	166,837	37,602	" " "
1874	1,62 ,707	83,524	....	....	....	130,561	26,303	" " "
1875	24,695	1,442	....	648	....	212,254	40,709	" " "
1876	2,245	266	....	17,195	....	160,487	36,401	" " "
1877	44,281	3,551	....	14,833	....	144,059	21,565	" " "
1878	87	7	....	11,136	....	129,629	22,968	" " "
879	....	....	....	22,972	....	211,862	25,429	" " "
1880	....	....	....	25,355	....	286,438	42,832	" " "
1881	....	....	....	66,152	....	270,597	37,639	" " "
1882	....	....	330,903	34,620	....	412,610	34,577	" " "
1883	....	....	759,317	106,437	....	391,037	38,069	" " "
1884	110	8	578,645	79,460	61,740	409,963	36,409	200,862
1885	3,110	19	439,055	33,894	80,791	436,839	36,977	169,189
1886	2,232,816	50,482	238,263	15,424	100,017	620,559	65,296	195,808
1887	852,129	17,275	335,127	20,948	74,187	704,589	43,601	156,878
1888	65,519	1,553	441,978	34,825	91,840	707,466	29,877	137,999
1889	179,142	4,272	78,264	5,179	169,723	804,560	28,274	113,483
1890	287,516	7,175	46,015	2,847	276,917	599,240	21,420	87,848
1891	19,808,645	483,196	....	....	713,732	696,429	25,724	81,974
892	9,906,590	236,085	....	....	536,477	688,251	28,358	68,[illegible]
1893	14,025,750	315,802	....	....	432,134	480,774	17,968	64,928
1894	4,341,004	125,869	....	....	395,575	542,525	21,820	43,235
1895	14,274,982	358,238	....	....	548,110	396,345	16,360	59,317
1896	24,541,396	480,971	....	....	662,459	404,098	22,066	62,881

Year.	Argols. Pounds.	Argols. Dollars.	Argols Refined. Pounds.	Argols Refined. Dollars.	Arrowroot. Pounds.	Arrowroot. Dollars.	Arsenic. Pounds.	Arsenic. Dollars.	Ashes. D'lars.
1872	4,424,637	608,567	2,316,566	437,699	857,568	37,084	1,109,811	30,337	11,093
1873	4,011,756	590,908	3,401,101	766,000	....	33,893	761,927	22,367	1,905
1874	3,190,247	463,618	2,504,225	565,301	948,054	37,743	1,636,335	39,985	3,225
1875	5,645,678	857,969	2,700,568	624,635	1,033,092	43,071	2,327,742	49,430	2,107
1876	6,965,015	1,030,529	2,582,651	576,293	....	58,783	447,019	13,784	2,322
1877	9,036,327	1,278,723	1,649,237	332,920	368,189	20,208	2,588,948	71,728	2,383
1878	10,262,523	1,298,161	397,767	77,976	107,920	13,751	2,471,861	58,662	2,158
1879	14,015,996	1,904,252	346,373	66,221	67,622	8,622	2,445,852	52,715	1,987
1880	14,458,034	2,105,403	458,794	97,439	105,699	10,894	2,717,777	62,207	3,209
1881	13,712,528	2,195,420	203,969	47,801	69,206	8,910	2,225,425	54,056	8,622
1882	18,313,544	3,010,667	82,887	18,697	77,192	10,405	3,396,334	89,111	12,305
1883	16,058,740	2,703,103	26,448	6,374	75,263	8,774	5,207,553	121,891	13,852
1884	19,596,960	3,255,476	121,466	28,084	127,244	16,039	3,695,525	86,430	19,717
1885	17,706,246	2,950,988	32,490	6,944	121,386	11,000	3,368,560	85,783	23,238
1886	16,046,114	2,606,001	19,734	4,305	114,932	12,601	5,042,664	101,371	28,022
1887	22,025,153	3,412,987	30,405	6,151	76,491	8,248	3,589,915	78,886	36,283
1888	17,287,979	2,373,935	96,118	18,791	141,883	12,373	7,109,347	163,645	44,592
1889	21,429,424	2,490,871	108,556	19,194	138,554	8,986	8,704,403	222,596	38,989
1890	24,927,373	2,800,731	21,571	3,508	126,977	9,039	8,495,626	229,109	40,098
1891	21,620,695	2,197,507	10,812	1,756	452,360	17,136	5,343,229	161,367	42,624
1892	24,823,174	2,216,525	40,376	6,095	369,891	13,978	4,933,125	124,027	54,855
1893	28,740,279	2,341,575	20,145	2,593	133,408	11,170	7,327,566	207,516	76,306
1894	22,450,652	1,504,200	9,140	1,329	91,054	10,347	6,127,319	185,465	74,050
1895	28,171,399	1,893,730	10,167	1,078	112,623	10,082	7,242,397	240,234	77,708
1896	28,269,339	2,724,538	697	135	112,673	9,514	6,422,119	225,051	67,394

	Asphaltum. Pounds.	Asphaltum. Dollars.	Balsam Copaiba. Pounds.	Balsam Copaiba. Dollars.	Balsam Fir. Pounds.	Balsam Fir. Dollars.	Balsam Peru. Pounds.	Balsam Peru. Dollars.
1872	2,948,451	35,533	88,794	32,185	....	....	2,416	4,407
1873	4,627,235	38,298	148,411	64,697	17,627	6,284	6,682	12,043
1874	2,366,295	17,710	79,409	39,195	33,144	11,278	7,180	11,287
1875	2,351,855	26,006	85,265	46,829	23,296	7,960	5,061	5,899
1876	1,613,000	23,818	166,976	80,720	14,029	2,638	1,271	1,639
1877	9,063,771	36,550	228,159	86,195	12,500	1,709	4,097	4,552
1878	10,952,515	35,932	67,007	25,245	49,946	7,593	8,924	8,899
1879	16,167,142	39,635	67,375	24,492	20,950	3,420	3,914	4,118
1880	33,650,802	87,889	140,849	52,772	17,176	3,219	4,961	7,040
1881	25,765,530	95,410	143,258	67,816	15,510	3,033	6,561	7,539
1882	30,030,437	102,699	203,650	96,329	3,331	6,823	6,652	16,060
1883	66,231,425	149,999	177,951	78,777	4,542	11,162	5,568	16,483
1884	71,586,794	160,277	183,676	65,658	11,808	3,660	11,090	21,731
1885	37,643,480	97,002	157,696	44,796	37,023	10,365	7,242	10,789
1886	45,581,293	87,051	131,693	33,046	16,805	4,718	9,854	12,750
1887	54,664,038	99,055	146,744	38,251	16,150	4,377	8,669	10,430
1888	80,430,214	113,854	131,262	43,171	30,841	8,954	8,328	8,547
1889	86,243,360	88,489	163,624	65,103	33,989	9,703	8,086	6,965
1890	157,326,400	90,555	206,240	78,836	31,478	6,512	6,122	5,253
1891	156,078,720	251,137	171,884	63,253	34,318	6,858	10,653	13,104
1892	257,228,160	388,361	206,011	93,483	7,875	1,558	6,032	4,565
1893	173,511,360	240,996	170,077	68,504	19,005	4,650	2,837	3,043
1894	165,625,600	203,883	92,367	25,366	20,250	7,025	5,506	4,704
1895	192,301,760	266,951	81,195	25,312	52,733	15,614	5,830	8,780
1896	211,196,160	259,350	103,239	29,198	62,784	5,295	6,684	13,240

	Balsam Tolu. Lbs.	Balsam Tolu. Dollars.	Balsam, all others. Lbs.	Balsam, all others. Dollars.	Bark, Cinchona. Lbs.	Bark, Cinchona. Dollars.	Bark, Hemlock. Cords.	Bark, Hemlock. Dollars.
1872	16,136	7,288	.....	2,801	2,852,841	982,674	48,912	194,792
1873	31,708	15,209	.....	5	4,438,935	942,506	38,853	157,175
1874	22,852	11,842	.....	19	5,140,500	1,265,597	45,300	194,288
1875	19,750	9,110	.....	23	4,520,390	888,762	46,072	194,649
1876	9,221	7,055	.....	19	5,280,150	1,102,203	48,146	184,634
1877	19,081	15,668	.....	.....	1,760,446	443,404	79,713	310,495
1878	23,752	16,300	.....	13	4,826,280	1,423,502	106,781	412,260
1879	34,922	19,155	.....	250	6,380,378	2,094,514	69,882	259,864
1880	52,085	26,181	.....	44	6,013,877	1,679,472	189,655	476,149
1881	39,995	18,791	.....	315	4,219,403	1,846,280	102,932	492,561
1882	42,723	20,920	.....	42	5,010,547	1,846,375	97,890	490,341
1883	14,568	5,995	.....	258	3,639,315	1,205,606	67,562	343,559
1884	73,157	31,506	6,047	2,475	2,588,307	718,035	68,070	364,410
1885	35,176	12,006	20,201	8,181	3,559,691	913,189	59,020	288,979
1886	37,722	10,959	4,315	1,387	4,447,082	925,744	50,314	236,198
1887	34,019	9,886	10,864	4,287	4,787,311	741,830	60,475	272,956
1888	40,095	11,506	43,920	13,789	2,801,457	344,718	62,926	260,261
1889	40,598	10,308	30,460	9,274	2,878,184	371,533	40,382	185,782
1890	44,742	10,533	31,409	7,944	2,838,306	382,737	30,023	163,673
1891	54,244	12,264	36,329	5,024	2,672,364	301,085	57,256	274,426
1892	63,912	19,019	30,656	9,762	3,423,941	299,998	53,019	256,346
1893	50,475	8,818	22,694	7,825	2,374,041	196,867	50,689	241,244
1894	13,789	2,955	207,735	16,823	2,502,224	143,194	46,183	212,350
1895	11,192	2,157	28,902	9,495	2,012,399	117,998	47,286	230,943
1896	4,186	1,927	78,946	19,941	2,699,790	165,699	43,965	214,892

	Bbls. Petro., Empty. Number.	Bbls. Petro., Empty. Dollars.	Baryta., Carb. Dollars.	Barytes, Sulph. Mfgd. Lbs.	Barytes, Sulph. Mfgd. Dollars.	Barytes, Sulph., Non-Mfgd. Lbs.	Barytes, Sulph., Non-Mfgd. Dollars.	Bay Rum and Water Pf. Gls.	Bay Rum and Water D'l'rs.
1872	....	....	. ..	Incl. in Barytes, Non-		5,804,098	43,521	....	....
1873	....	....	....	Mfgd.		6,939,425	53,790	....	....
1874	....	....	....	"	"	4,788,966	42,235	....	....
1875	....	....	....	"	"	2,177,854	17,995	....	....
1876	....	....	....	"	"	2,655,349	25,345	....	....
1877	....	....	....	"	"	2,388,373	19,276	....	....
1878	....	....	....	"	"	1,366,857	10,340	....	....
1879	....	....	....	"	"	453,333	496	....	....
1880	....	....	....	"	"	4,924,423	37,374	....	....
1891	....	....	....	"	"	1,518,322	11,471	....	....
1882	....	....	....	"	"	562,300	3,856	....	....
1883	....	....	....	"	"	411,666	2,489	....	....
1884	3,303,706	3,636,233	8,814	2,721,361	15,417	2,750,082	3,666	44,786	35,110
1885	3,966,278	4,354,842	7,522	4,100,173	24,584	9,622,882	13,324	41,208	28,599
1886	4,060,863	4,220,983	9,505	4,019,280	19,742	5,300,269	8,883	47,902	30,619
1887	4,079,221	3,863,157	11,422	3,442,563	17,153	11,813,810	12,649	53,693	34,332
1888	3,151,136	2,783,515	10,350	4,274,011	19,816	9,055,859	12,032	53,564	34,672
1889	1,881,098	1,619,966	13,383	3,549,767	21,065	6,219,385	8,242	52,690	30,495
1890	529,902	461,023	6,222	3,379,216	18,230	7,248,322	9,614	63,914	37,827
1891	131,582	106,839	13,098	3,936,664	19,196	11,712,382	15,482	50,059	27,308
1892	175,311	159,489	10,246	4,385,520	20,908	8,057,280	11,060	33,935	20,236
1893	189,390	152,842	21,640	2,309,440	11,638	6,068,720	6,995	29,623	19,563
1894	52,880	39,749	12,127	2,121,160	11,240	5,743,360	5,620	21,214	13,865
1895	23,733	23,927	17,011	2,710,400	13,952	2,132,576	3,095	35,836	21,149
1896	21,234	19,108	16,887	6,098,240	22,329	1,105,520	2,788	28,220	15,188

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TOTAL IMPORTS (Continued).

	Beeswax. Lbs.	Beeswax. Dollars.	Blanc Fixe. Lbs.	Blanc Fixe. Dollars.	Bone Black, Lamp Bl'k, etc. Lbs.	Bone Black, Lamp Bl'k, etc. Dollars.	Bone Dust & Ash. Tons.	Bone Dust & Ash. Dollars.	Bones, Crude. Dollars.
1872	11,949	3,911	70,469	5,091	.....	.....	.....	*66,851	*Incl. in
1873	22,973	7,159	119,972	4,457	.....	.....	.....	*123,548	Bone and
1874	16,880	4,521	118,384	4,079	.....	.....	.....	119,377	Ash.
1875	30,459	8,009	145,728	4,899	.....	.....	.....	101,095	
1876	20,511	6,120	15,744	1,091	.....	.....	.....	43,494	
1877	19,687	3,199	4,500	800	.....	.....	.....	56,935	
1878	11,289	2,122	4,955	1,048	.....	.....	.....	53,932	
1879	12,788	3,066	1,993	329	.....	.....	.....	113,768	
1880	6,022	1,377	4,400	752	.....	.....	.....	190,326	
1881	7,003	1,415	11,330	2,027	.....	.....	.....	312,602	
1882	6,400	1,198	52,364	1,781	.....	.....	.....	1,044,285	
1883	154,289	36,682	28,525	1,231	.....	.....	.....	444,281	
1884	36,536	7,406	71,059	1,871	.....	53,411	8,734	183,553	191,505
1885	86,920	20,176	28,538	588	.....	40,610	6,861	115,437	162,986
1886	21,811	5,120	53,617	1,052	.....	65,169	21,235	351,390	310,781
1887	9,159	1,946	71,806	1,621	.....	34,895	22,314	412,926	59,244
1888	42,560	7,972	70,304	1,540	.....	20,174	1,605	20,056	195,979
1889	55,052	9,153	.....	.....	.....	20,400	4,586	57,447	318,351
1890	133,091	19,780	.....	.....	.....	16,502	3,219	59,095	345,511
1891	383,725	81,921	173,772	3,207	.....	32,926	6,614	122,717	332,911
1892	270,928	65,488	476,163	6,881	770,760	37,305	6,588	128,398	348,310
1893	248,000	62,024	506,343	7,988	516,068	26,613	7,875	152,642	360,305
1894	318,710	80,034	255,285	3,979	410,464	18,515	3,378	44,747	301,554
1895	288,341	78,771	2,221,682	18,639	742,296	37,414	3,195	41,777	305,043
1896	274,334	76,126	3,276,933	28,011	747,553	32,281	2,983	37,992	154,610

	Borax, Refined. Lbs.	Borax, Refined. Dollars.	Borax, Crude. Lbs.	Borax, Crude. Dollars.	Bristles. Lbs.	Bristles. Dollars.	Bromine. Lbs.	Bromine. Dollars.
1872	35,542	6,283	22,500	80,000	797,107	778,031	....	....
1873	9,284	2,152	....	....	623,296	795,734	....	....
1874	3,800	1,253	....	....	508,832	640,364	....	....
1875	5,153	1,224	588	78	512,126	649,392	....	....
1876	3,145	691	....	....	494,444	550,820	....	....
1877	3,500	676	55	12	453,287	545,011	....	....
1878	3,492	574	286	61	601,872	644,366	....	....
1879	3,472	490	....	....	435,591	490,181	....	....
1880	15,278	2,011	22,122	742	873,526	923,024	....	....
1881	4,136	866	....	....	891,877	955,118	....	....
1882	15,710	3,774	....	....	877,457	1,037,999	....	....
1883	5,611	1,359	....	....	983,907	1,193,797	....	....
1884	7,332	1,692	142	34	954,969	1,135,837	....	....
1885	240	41	....	....	788,904	941,039	....	....
1886	4,625	770	4	1	999,878	1,029,975	22,099	6,288
1887	3,731	439	33	4	1,162,825	1,156,435	66,278	16,374
1888	4,705	600	455	58	990,497	1,072,066	22,123	5,565
1889	5,642	685	....	....	1,330,935	1,310,355	....	....
1890	2,372	275	29,608	800	1,036,693	1,064,531	4,850	335
1891	10,725	1,062	414,151	17,681	1,532,115	1,502,827	....	....
1892	3,970	426	40	6	1,478,747	1,412,875	53,563	7,094
1893	11,230	1,327	543,967	13,659	1,608,688	1,508,115	780	234
1894	1,815	225	441,066	11,427	591,998	639,030	20	11
1895	612,730	26,429	4,234,261	105,604	1,501,569	1,434,492	....	....
1896	11,376	796	4,307,100	104,951	1,508,576	1,429,208	....	....

	Bronze Powder. Lbs.	Bronze Powder. Dollars.	Brushes.	Buchu. Lbs.	Buchu. Dollars.	Camphor, Refined. Lbs.	Camphor, Refined. Dollars.	Camphor, Crude. Lbs.	Camphor, Crude. Dollars.
1872	.....	7,901	390,577	179,382	17,825	2,040	511	688,188	130,965
1873	.....	32,999	393,198	154,493	12,361	18,775	5,358	1,527,300	249,596
1874	.....	91,100	306,709	94,926	5,115	20,231	4,195	789,737	109,576
1875	.....	94,201	266,882	21,708	1,007	30,236	6,462	943,191	109,319
1876	.....	98,480	282,168	.....	.....	136,536	27,923	324,972	35,542
1877	.....	84,003	263,664	37,679	2,081	208	72	1,022,565	153,229
1878	.....	98,973	295,413	13,313	2,580	259	81	1,101,258	163,860
1879	.....	108,670	282,108	68,506	4,701	21	6	986,292	141,963
1880	.....	212,665	369,464	32,755	3,436	57	16	2,542,830	368,874
1881	.....	228,526	439,856	93,850	14,012	134	36	2,055,165	350,503
1882	.....	284,375	491,908	76,292	11,792	11	5	2,076,192	301,829
1883	.....	291,222	434,706	118,161	14,091	.....	.....	2,323,415	310,768
1884	.....	399,470	622,665	97,140	7,270	.....	.....	2,065,982	227,618
1885	.....	273,110	485,639	125,469	5,758	7	1	2,223,035	211,833
1886	.....	444,928	522,210	92,328	5,129	133	16	1,133,913	126,827
1887	.....	472,842	557,348	127,230	7,792	307	45	2,873,184	352,861
1888	.....	548,843	630,845	.....	8,899	61	8	2,779,719	304,460
1889	.....	525,785	658,425	.....	2,227	72	11	1,974,500	293,031
1890	.....	511,614	750,729	.....	949	87	38	2,061,370	421,385
1891	.....	469,749	858,822	.....	1,314	63	21	1,666,074	468,025
1892	1,405,352	467,057	807,844	.....	7,167	56,820	17,361	1,955,787	447,634
1893	1,350,928	447,063	919,195	.....	11,443	156,291	51,229	1,723,425	446,548
1894	980,827	341,087	550,334	.....	8,574	137,883	44,233	1,323,932	309,407
1895	107,328	241,845	658,083	.....	3,022	271,164	83,382	1,509,713	284,968
1896	956,524	273,136	766,570	.....	9,314	153,912	68,785	943,205	328,457

	Candles. Dollars.	Cantharidies. Lbs.	Cantharidies. Dollars.	Cassia Buds. Lbs.	Cassia Buds. Dollars.	Castor Beans. Bush.	Castor Beans. Dollars.	Castor. Oz.	Castor. Dollars.
1872	8,386	13,953	17,192	32,094	9,644	3,395	3,883	.....	368
1873	4,571	23,724	29,262	39,425	9,356	7,970	9,606	.....	.....
1874	6,498	7,323	5,966	34,720	8,970	17,089	20,021	.....	.....
1875	4,131	18,658	17,502	35,687	7,123	30,191	35,899	.....	.....
1876	4,397	18,562	16,957	57,283	10,722	.....	.....	.....	438
1877	7,622	14,207	11,843	66,264	11,613	5,851	7,239	.....	2,482
1878	8,055	16,202	11,888	20,249	3,056	2,317	2,915	.....	.....
1879	4,751	4,955	2,916	26,898	3,784	1,655	2,288	.....	910
1880	6,817	11,240	9,208	28,318	3,760	23,610	19,624	.....	1,121
1881	3,239	16,008	11,087	64,199	9,897	36,540	34,770	.....	62
1882	6,678	19,024	12,974	34,150	4,351	47,782	48,955	.....	1,218
1883	6,140	8,689	7,449	27,439	2,858	29,227	26,993	.....	5,571
1884	9,978	16,604	17,766	831,675	48,866	102,824	100,393	5,700	1,472
1885	18,087	19,958	92,228	120,396	7,818	262,505	274,394	1,060	206
1886	18,810	15,117	16,734	238,031	15,062	224,379	221,961	320	174
1887	39,617	36,638	34,655	237,403	18,293	33,649	30,204	736	377
1888	26,463	18,062	10,171	248,839	18,751	9,828	8,936	652	409
1889	30,654	14,377	8,113	26,794	2,657	67,260	70,429	988	561
1890	33,839	13,300	5,815	70,522	7,306	94,226	122,816	1,824	714
1891	19,842	5,787	4,256	129,317	13,914	105,374	120,202	5,247	1,343
1892	25,308	10,446	5,873	143,121	15,897	163,089	160,919	1,856	476
1893	30,864	23,357	9,301	84,547	9,227	147,061	148,904	401	155
1894	19,467	6,187	3,840	91,090	14,212	47,448	41,931	996	739
1895	21,024	7,899	1,986	99,787	15,044	277,231	215,360	3,644	841
1896	17,011	3,688	1,662	57,712	8,069	145,735	117,945	583	408

	Chalk-Precip. Lbs.	Chalk-Precip. Dollars.	Camwood. Tons.	Camwood. Dollars.	Chamomiles. Dollars.	China Clay. Tons.	China Clay. Dollars.	Chloroform. Lbs.	Chloroform. Dollars.	Cinchonidia. Ozs.	Cinchonidia. Dollars.
1872	273,402	6,871	...	.....	.....	13,061	128,139	30	19	.....	.....
1873	135,222	3,395	351	28,053	13,508	1,378	13,091	33	28	.....	.....
1874	22,668	752	180	15,618	7,846	80	1,378	16	13	.....	.....
1875	62,406	1,665	291	27,691	14,611	130	1,977	27	18	.....	.....
1876	26,646	1,183	249	22,719	9,837	142	2,152	21	87	.....	.....
1877	119,212	5,876	408	42,547	18,695	204	3,009	2	2	.....	.....
1878	100,233	4,931	641	72,111	6,099	3,499	38,899	2	1	.....	.....
1879	60,197	2,950	565	58,291	8,579	4,775	45,272	16	30	.....	.....
1880	147,276	6,865	294	29,556	15,303	7,823	67,740	6	5	.....	.....
1881	143,003	6,430	308	27,513	11,761	6,887	66,654	50	33	.....	.....
1882	191,133	8,323	283	23,673	12,568	13,955	135,447	2,402	1,585	.....	.....
1883	133,327	5,864	340	41,240	23,720	12,870	115,492	12	15	.....	.....
1884	.....	16,727	660	65,461	10,323	16,113	131,063	525	252	381,885	206,405
1885	.....	16,533	730	68,721	10,790	10,626	87,722	47	39	478,747	220,846
1886	.....	16,117	280	23,595	10,936	14,183	110,452	24	19	449,414	56,699
1887	.....	15,038	432	40,319	12,476	20,387	135,353	5	6	570,162	41,601
1888	.....	15,749	283	21,854	12,763	21,240	122,412	8	7	609,576	28,883
1889	.....	15,339	...	.....	12,387	19,260	104,776	7	7	171,251	6,839
1890	.....	17,265	25	1,041	8,346	27,137	160,420	5	2	106,829	5,379
1891	.....	18,643	3	2,220	9,463	33,706	232,700	...	...	156,229	3,856
1892	434,726	13,148	29	3,339	8,505	45,841	347,368	35	15	11,483	1,586
1893	474,521	14,821	26	3,745	11,714	52,671	399,474	11	14	364,192	11,714
1894	429,839	12,929	70	5,770	45,111	49,790	369,950	44	18	313,640	7,177
1895	608,906	14,839	23	1,676	58,828	70,585	505,657	239	164	72,425	5,534
1896	677,200	16,009	50	3,748	90,964	79,695	560,263	138	48	282,321	9,980

TOTAL IMPORTS (Continued).

	Cinnamon. Lbs.	Cinnamon. Dollars.	Civet. Ozs.	Civet. Dollars.	Cloves. Lbs.	Cloves. Dollars.	Clove Stems. Lbs.	Clove Stems. Dollars.
1872	3,678	2,387	Included in Musk.		1,358,076	73,761	120,465	2,704
1873	14,987	8,615	"	"	1,484,425	91,720	71,211	1,654
1874	9,655	5,511	"	"	1,202,587	143,209	280,235	10,663
1875	7,133	4,013	"	"	1,235,572	213,965	46,812	2,475
1876	11,565	6,773	"	"	843,301	143,647	88,033	4,032
1877	20,607	10,656	"	"	596,759	157,066	15,128	335
1878	14,659	7,380	"	"	936,365	255,042	51,455	3,926
1879	7,844	3,574	"	"	863,275	210,083	149,727	8,534
1880	5,598	2,978	"	"	1,234,388	339,130	184,464	13,226
1881	10,397	3,852	"	"	1,046,911	310,543	118,968	8,435
1882	4,640	2,255	"	"	1,522,727	377,088	176,369	12,509
1883	4,363	1,497	"	"	989,393	183,017	126,725	7,030
1884	51,943	14,035	4,062	7,913	2,325,945	300,231	215,593	5,141
1885	12,794	1,880	3,802	5,561	2,385,026	259,626	471,470	7,669
1886	78,927	11,485	2,386	3,725	1,298,883	154,383	296,127	5,732
1887	163,841	34,370	5,047	7,681	1,292,882	258,421	177,628	7,093
1888	57,316	13,945	2,570	5,238	1,854,810	306,268	167,648	6,392
1889	62,027	10,074	4,622	9,305	1,602,447	291,591	801,709	35,950
1890	57,052	8,790	7,859	17,765	3,241,373	374,507	454,431	10,755
1891	38,671	4,537	3,952	6,294	2,510,068	284,181	425,137	8,660
1892	112,450	14,716	4,360	6,469	3,744,563	290,165	252,863	4,830
1893	96,251	12,392	5,851	9,818	4,076,362	303,905	418,562	9,123
1894	283,653	34,468	3,719	7,401	2,655,099	157,897	169,412	3,586
1895	227,513	19,467	3,775	11,240	2,464,274	163,083	635,642	14,654
1896	539,372	76,075	....	31,909	3,124,812	152,394	280,340	5,695

	Cliffstone. Tons.	Cliffstone. Dollars.	Coal Tar Dyes, N. O. P. F. Lbs.	Coal Tar Dyes, N. O. P. F. Dollars.	Alizarine and Alizarine Dyes. Lbs.	Alizarine and Alizarine Dyes. Dollars.	Cobalt Oxide. Lbs.	Cochineal. Lbs.	Cochineal. Dollars.
1872	19,945	65,224	94,903	388,112	Previous to 1884	.....	1,920	1,545,523	981,260
1873	25,582	45,662	128,161	464,326	under Alizarine,	1,480	4,714	1,131,320	678,628
1874	24,019	37,760	182,953	595,291	and also under	1,404	5,500	1,820,603	927,530
1875	20,579½	31,363	189,996	597,874	Coal Tar Dyes,	678	2,604	1,177,650	568,508
1876	27,017	22,266	165,753	415,434	Tariff of 1883	4,440	11,180	1,181,471	496,837
1877	27,242	21,115	210,507	489,032	made Alizarine	19,752	11,056	1,304,370	648,621
1878	46,710	42,807	228,425	479,373	Dyes free.	2,860	8,693	1,392,629	698,054
1879	22,645	20,579	297,222	595,489	.....	.....	7,531	1,420,138	728,063
1880	49,710	46,870	563,872	976,405	.....	.....	9,819	1,369,821	891,774
1881	42,172	49,354	800,255	1,208,553	.....	.....	21,844	1,072,144	527,836
1882	49,751	45,455	1,103,869	1,415,739	.....	.....	17,758	1,824,781	663,017
1883	60,475	47,107	1,004,701	1,195,837	.....	.....	13,067	1,658,823	406,868
1884	8,462	15,096	.....	1,844,001	778,660	296,123	25,963	43,611	658,160
1885	9,319	28,177	.....	1,368,058	1,470,864	404,002	16,162	28,138	783,382
1886	11,252	20,157	.....	1,493,388	2,329,636	479,491	14,215	22,757	662,344
1887	12,381	26,065	.....	1,540,813	2,095,202	356,748	28,681	42,034	495,866
1888	10,567	28,221	.....	1,446,180	2,478,197	416,447	27,885	44,973	181,565
1889	11,940	26,195	.....	1,707,100	2,582,594	440,209	21,494	39,378	249,998
1890	13,940	16,067	.....	1,813,771	2,155,120	358,882	29,135	57,044	218,218
1891	10,000	16,010	.....	1,632,642	3,443,167	674,101	34,700	63,433	86,797
1892	18,042	20,860	.....	1,640,025	4,838,220	1,029,122	33,304	64,830	230,039
1893	11,867	16,687	.....	2,322,258	5,729,221	1,125,506	35,730	55,742	215,512
1894	12,163	17,212	.....	1,429,102	3,960,079	722,919	13,586	19,970	104,284
1895	6,650	10,745	.....	2,739,934	5,287,720	870,383	1,833	2,591	130,205
1896	20,654	33,312	.....	2,918,332	6,154,156	994,395	27,091	30,012	160,422

	Copperas. Lbs.	Copperas. Dollars.	Copper Sulphate. Lbs.	Copper Sulphate. Dollars.	Corks. Lbs.	Corks. Dollars.	Cream of Tartar. Lbs.	Cream of Tartar. Dollars.	Cork-wood. Dollars.
1872	637,474	3,899	74,603	4,575	.....	125,480	2,698,277	530,939	484,348
1873	225,590	1,516	79,406	4,727	.....	159,603	3,005,651	696,990	645,928
1874	170,511	1,279	14,598	1,015	.....	115,727	2,456,924	565,331	435,270
1875	138,473	1,171	77,215	6,657	.....	103,335	1,948,224	458,620	383,005
1876	69,802	385	4,129	247	.....	74,394	1,186,553	278,838	606,277
1877	34,791	230	190,657	10,283	.....	61,837	346,158	72,936	419,114
1878	46,875	256	65,400	3,433	.....	57,858	74,037	15,825	495,316
1879	87,450	481	2,552	123	.....	67,367	23,124	4,998	494,773
1880	240,258	1,437	2,750	141	.....	104,809	40,655	11,293	658,830
1881	157,496	956	20	4	.....	103,945	23	7	787,933
1882	23,517	195	20	3	.....	120,312	77	20	1,124,288
1883	38,964	290	536	28	.....	91,400	.....	.....	934,427
1884	285,691	1,555	10	1	.....	138,419	22	15	935,871
1885	165,653	860	1,287	61	.....	147,132	44	17	879,243
1886	121,600	387	422	19	.....	176,679	11,834	3,164	891,392
1887	136,573	723	463	18	.....	209,532	34,099	8,953	1,239,247
1888	201,119	904	2,507	106	.....	265,342	1,165	258	1,068,861
1889	2,361,218	38,614	20,076	989	.....	247,191	18,628	4,075	902,047
1890	208,195	913	682	41	.....	343,734	2,465	463	1,213,876
1891	896,937	4,104	3,432	310	.....	428,636	778	158	1,249,008
1892	495,596	2,597	2,189	156	668,592	312,955	115	14	1,368,244
1893	1,010,039	4,099	8,941	363	703,039	345,189	1,334	373	1,641,294
1894	927,162	3,619	2,470	140	552,470	260,331	283	135	985,906
1895	542,266	1,341	244,687	5,428	88,731	38,195	1,262	40	1,049,073
1896	1,123,443	4,161	876,401	28,792	981,459	386,694	6,364	881	1,208,471

	Coal Tar Pitch. Bbls.	Coal Tar Pitch. Dollars.	Cocoa Butter. Pounds.	Cocoa Butter. Dollars.	Copal, Kauri and Damar. Pounds.	Copal, Kauri and Damar. Dollars.	Cryolite. Tons.	Cryolite. Dollars.	Cubebs. Pounds.	Cubebs. Dol'rs.
1872	....	....	....	....	8,568,993	1,152,486	....	75,195	45,063	2,602
1873	....	....	....	....	8,820,248	1,286,138	....	84,226	171,037	8,314
1874	....	....	....	....	6,852,074	1,269,848	....	28,118	47,596	3,439
1875	....	....	....	....	10,961,709	1,861,760	....	70,472	87,008	4,794
1876	....	....	....	....	7,571,491	1,452,011	....	203,530	98,296	6,072
1877	....	....	....	....	6,411,881	826,931	....	126,602	66,926	4,637
1878	....	....	....	....	7,313,847	803,288	....	105,884	7,045	435
1879	....	....	....	....	8,758,151	980,873	....	60,042	277,422	22,279
1880	....	....	....	....	12,820,769	1,609,972	....	91,366	199,634	23,088
1881	....	....	....	....	15,140,050	2,343,736	....	163,529	131,850	21,506
1882	....	....	....	....	17,239,833	2,091,584	3,758	51,589	111,973	27,641
1883	....	....	....	....	14,164,581	2,331,249	6,508	97,400	120,618	36,929
1884	3,445	23,587	....	18,791	12,582,157	1,402,979	7,390	106,429	89,749	31,416
1885	6,960	25,449	....	27,880	12,283,530	1,324,054	8,502	113,847	82,526	35,397
1886	2,646	11,908	....	50,700	11,649,127	1,191,164	6,866	91,890	110,065	58,035
1887	4,344	15,133	....	18,362	12,754,488	1,325,044	11,732	157,034	61,481	35,109
1888	3,869	12,411	331,015	92,931	16,518,513	1,739,807	9,905	132,411	68,031	59,508
1889	2,776	12,646	512,922	129,699	15,602,521	1,419,624	4,309	57,605	51,020	50,914
1890	14,375	51,854	526,580	141,447	16,287,905	1,436,014	8,603	125,158	84,729	85,483
1891	98,366	263,593	849,127	216,482	15,245,524	1,637,677	7,129	95,405	65,404	46,530
1892	117,056	302,791	1,171,860	276,252	18,140,231	1,779,367	8,298	76,350	115,974	42,616
1893	102,136	244,291	1,540,414	392,143	19,728,561	2,270,071	8,459	111,796	136,353	27,762
1894	90,068	218,514	1,117,862	290,150	13,103,295	1,397,555	12,756	170,215	83,244	8,512
1895	112,536	247,957	1,291,815	325,586	16,940,576	1,695,310	8,385	116,273	193,876	12,414
1896	139,976	288,751	1,707,938	426,521	18,686,977	2,012,452	7,024	93,198	290,674	16,229

	Cudbear. Lbs.	Cudbear. Dollars.	Cutch. Lbs.	Cutch. Dollars.	Cuttlefish. Lbs.	Cuttlefish. Dollars.	Dextrine. Lbs.	Dextrine. Dollars.
1872	388,001	64,204	10,359,730	355,047	28,504	2,236	46,447	3,723
1873	428,384	67,326	20,916,180	794,743	21,388	2,320	117,958	8,032
1874	355,106	52,513	18,568,335	773,909	46,586	5,178	237,376	14,490
1875	593,900	93,939	15,674,900	661,853	37,192	4,355	616,052	36,085
1876	773,845	106,251	16,591,371	782,663	49,736	5,817	168,323	9,714
1877	1,166,087	162,641	22,880,460	905,606	54,215	9,482	287,603	16,023
1878	1,168,507	174,280	24,752,058	978,539	101,518	10,015	289,875	16,201
1879	1,235,611	166,016	19,247,258	753,279	129,837	11,779	718,482	40,539
1880	2,030,671	259,092	47,787,031	1,811,978	129,398	11,642	962,966	56,237
1881	1,931,357	232,360	38,629,547	1,688,394	85,297	7,682	849,892	49,982
1882	1,453,656	222,381	15,157,569	638,573	124,269	20,848	1,763,354	81,151
1883	2,418,561	294,575	7,525,400	366,328	178,789	22,958	5,402,563	229,986
1884	605,722	82,831	8,469,834	452,096	163,344	22,455	2,586,184	102,756
1885	512,039	66,583	9,443,123	413,424	100,785	12,223	4,160,779	151,957
1886	603,299	75,738	10,299,613	406,160	161,696	15,232	6,780,220	225,180
1887	471,043	60,968	9,849,490	530,772	196,437	14,889	5,617,751	177,849
1888	486,895	52,112	12,286,470	660,742	114,457	10,824	7,605,124	230,248
1889	375,453	42,160	10,855,151	581,596	94,493	10,058	5,969,920	199,316
1890	401,836	39,306	6,555,405	280,926	166,768	17,162	9,183,566	309,039
1891	402,241	37,889	6,803,260	355,090	157,114	20,089	6,319,352	212,968
1892	276,690	24,597	8,406,317	438,661	220,131	23,869	3,275,326	137,408
1893	320,348	25,317	12,623,477	545,534	139,260	15,412	4,650,215	161,430
1894	151,121	12,666	8,213,312	336,240	149,708	13,013	3,988,361	121,963
1895	148,024	13,139	6,506,191	244,276	187,729	10,613	5,819,263	160,197
1896	118,517	9,256	7,085,572	324,020	50,002	2,783	6,047,921	157,799

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1872	500	250	..	17,465	137,769	1,631	....	11,093	29,480	10,094
1873	....	8,218	....	51,151	43,293	633	....	13,362	45,437	11,784
1874	....	1,991	....	114,279	66,793	934	....	22,373	31,304	4,561
1875	....	1,015	....	81,025	21,793	364	....	127,496	60,620	10,878
1876	....	1,436	....	47,697	21,962	200	....	78,845	42,599	15,192
1877	....	713	....	24,755	33,930	587	....	101,094	75,550	47,738
1878	....	687	....	18,823	37,542	440	1,323,100	113,649	63,804	14,497
1879	....	20	....	16,161	47,785	578	2,706,631	215,121	81,503	16,126
1880	....	1,618	....	32,399	29,421	376	5,376,052	373,481	128,971	35,027
1881	....	2,977	....	45,307	17,410	293	6,081,388	454,984	127,618	45,156
1882	8,909	2,113	....	60,935	9,422	153	5,775,943	427,504	128,114	47,663
1883	13,785	2,752	....	94,626	21,046	327	7,818,519	522,900	87,214	23,364
1884	17,124	1,822	....	74,137	9,972	143	2,656,805	279,517	117,056	29,694
1885	11,862	2,022	....	74,192	9,106	135	2,194,331	192,265	96,430	18,946
1886	18,880	2,493	....	110,187	14,187	187	3,764,744	280,191	88,070	22,753
1887	3,024	525	....	135,372	15,231	195	3,666,378	245,036	139,578	37,372
1888	8,187	1,712	....	151,330	20,146	234	2,551,455	173,911	14,048	26,191
1889	14,564	2,055	....	170,187	14,247	176	2,178,174	146,235	102,275	30,313
1890	19,587	2,478	....	267,549	9,772	138	2,928,600	222,029	100,857	30,424
1891	2,088	541	....	183,248	16,370	200	3,300,227	275,803	88,620	25,932
1892	11,488	1,692	2,505,114	191,807	31,742	360	4,227,017	325,577	125,148	61,350
1893	18,015	2,746	2,248,318	175,908	61,337	480	3,757,259	287,723	157,984	64,265
1894	5,820	1,608	1,008,073	86,877	60,294	402	2,817,451	196,397	108,306	29,003
1895	12,424	3,989	1,695,815	136,532	650	16	3,565,277	261,762	208,755	35,533
1896	10,855	3,516	1,793,838	139,531	100,859	691	4,910,176	287,120	97,518	14,398

	Fertilizer, N. E. S.		Fustic.		Gambier.		Gelatine.		Gentian Root.	
	Tons.	Dollars.	Tons.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	.....	.....	.....	.....	Included under Cutch		.....	57,175	.....	.....
1873	.....	.....	6,856	128,495	to 1884.		147,670	74,826	95,367	2,970
1874	.....	.....	3,800	63,788	.....	.....	155,233	90,071	59,506	1,724
1875	.....	.....	3,306	54,047	.....	.....	158,746	99,933	106,506	3,702
1876	.....	.....	8,720	176,989	.....	.....	138,496	77,009	97,025	1,172
1877	.....	.....	4,049	71,676	.....	.....	165,173	90,972	32,078	1,460
1878	.....	.....	3,284	51,632	.....	.....	173,330	91,120	226,195	8,160
1879	.....	.....	7,500	127,676	.....	.....	206,854	99,963	50,666	1,677
1880	.....	.....	6,287	106,256	.....	.....	314,263	130,155	162,898	5,611
1881	.....	.....	8,678	130,490	.....	.....	379,835	141,261	102,297	3,393
1882	.....	.....	8,782	144,018	.....	.....	476,011	158,462	119,858	4,463
1883	.....	.....	12,746	220,605	.....	.....	475,037	164,155	161,519	8,044
1884	9,843	85,086	11,811	177,830	12,146,749	696,594	.....	232,643	267,377	13,860
1885	10,897	223,292	8,000	119,689	11,658,211	497,781	.....	182,182	177,408	7,870
1886	21,365	358,170	12,762	199,405	18,591,368	759,162	.....	220,137	181,486	6,408
1887	23,381	323,704	12,505	162,641	15,748,723	680,485	.....	219,358	275,891	8,390
1888	16,949	250,844	4,584	55,592	24,733,164	1,079,678	.....	221,028	122,925	3,972
1889	28,150	349,521	8,516	110,303	23,213,647	1,025,985	.....	227,394	208,814	5,996
1890	21,277	333,109	10,022	157,187	25,617,977	1,398,218	.....	243,568	220,548	6,438
1891	14,792	221,467	9,100	133,842	27,610,594	1,343,604	.....	251,903	214,645	5,943
1892	21,626	398,655	8,490	125,067	25,808,495	1,069,043	658,824	269,377	72,082	2,036
1893	25,043	445,286	10,294	165,807	35,762,646	1,305,468	595,887	277,573	178,680	4,818
1894	25,652	393,075	7,765	126,309	26,408,458	981,328	807,339	447,291	367,699	9,920
1895	27,103	374,647	6,299	89,696	29,022,603	963,255	705,092	301,428	126,323	3,342
1896	40,260	460,159	6,332	90,389	32,243,256	1,108,611	693,545	280,407	248,659	7,626

	Ginger.		Glass, Window. Cylinder, Crown, Plain, Unpol.		Glass, Window, Cylinder, Crown, Plain, Pol., Unsil.		Glass, Cyl. & Crown. Pol. Silv. and L. G. Plates.	
	Pounds.	Dollars.	Pounds.	Dollars.	Sq. Feet.	Dollars.	Sq. Feet.	Dollars.
1872	1,825,623	88,651	47,471,750	1,997,242	200,331	34,750	....	....
1873	3,770,768	247,866	47,141,656	2,475,508	101,445	28,050	....	..
1874	2,890,712	149,471	39,864,779	2,141,127	64,562	19,376	....	....
1875	2,391,071	172,095	34,202,273	1,645,746	51,002	22,079	....	....
1876	3,011,797	195,707	28,838,119	1,322,017	76,184	10,206	....	....
1877	2,468,511	158,277	24,937,438	1,027,592	29,712	9,214	....	....
1878	2,889,138	128,980	23,053,753	801,240	24,727	8,304	....	....
1879	3,466,685	155,359	20,689,862	652,842	42,206	11,294	....	....
1880	3,393,860	150,897	43,949,851	1,405,978	88,067	21,097	....	....
1881	2,102,743	107,177	45,562,697	1,425,362	49,907	16,559	....	....
1882	1,403,130	81,260	49,301,074	1,454,834	82,025	25,362	....	....
1883	1,873,542	128,882	50,947,890	1,582,469	72,035	22,833	....	....
1884	3,386,738	278,243	77,924,668	2,417,728	156,192	50,730	....	....
1885	3,125,444	232,890	72,936,007	1,701,337	70,123	21,530	1,133	389
1886	4,277,110	220,445	54,570,255	1,363,422	83,596	26,260	....	....
1887	6,630,577	235,069	61,627,948	1,424,964	202,286	64,738	....	....
1888	3,829,712	129,140	70,513,837	1,378,466	223,733	70,744	169,029	67,585
1889	3,104,471	121,742	75,964,827	1,462,715	197,186	72,745	3,222,344	944,553
1890	2,328,825	114,766	70,235,444	1,402,796	246,212	73,950	4,283,193	1,522,922
1891	2,697,980	140,052	60,814,537	1,484,798	208,099	58,560	3,267,226	1,217,272
1892	1,431,295	103,316	67,320,577	1,549,706	326,828	101,909	4,282,855	1,675,052
1893	2,927,942	208,169	62,757,660	1,479,640	360,638	89,754	4,764,837	1,622,107
1894	3,056,918	230,233	45,182,037	932,648	101,041	21,974	3,163,865	858,961
1895	5,525,337	346,678	48,244,661	946,700	204,064	41,071	3,185,415	783,465
1896	4,827,703	226,251	54,189,854	1,062,889	285,447	62,627	3,710,664	1,106,260

	Glass Plate, Rough.		Glass Plate, Cast, Pol., Fin. or Unfin. and Unsilv.		Glass Plate, Cast, Pol., Silv., and L. G. Plates.		Glucose and Grape Sugar.	
	Sq. Feet.	Dollars.	Sq. Feet.	Dollars.	Sq. Feet.	Dollars.	Pounds.	Dollars.
1872	713,196	34,304	2,109,537	1,078,947	2,752,030	791,050	....	16,672
1873	642,281	23,710	2,208,351	1,472,145	2,514,099	873,287	....	2,633
1874	631,720	31,588	2,009,951	1,631,129	2,616,367	953,300	....	47
1875	846,515	39,759	1,810,553	1,664,576	2,254,387	872,687	....	3,352
1876	899,554	35,736	1,592,591	1,358,401	2,136,696	789,725	....	65,789
1877	286,404	15,368	1,594,892	1,361,624	1,911,594	557,029	....	233,366
1878	84,694	5,753	1,230,567	984,474	1,739,798	472,267	....	149,394
1879	180,991	8,087	1,563,797	706,204	2,011,910	578,885	....	126,244
1880	770,650	25,711	1,906,617	759,407	3,038,923	957,735	....	133,614
1881	540,140	27,732	2,383,389	1,069,829	3,102,063	857,689	....	107,370
1882	1,310,918	57,961	3,047,060	1,190,357	3,366,784	933,855	2,271,208	82,510
1883	1,620,350	88,080	3,011,680	1,150,547	3,755,102	1,220,113	2,443,570	83,550
1884	2,365,783	108,393	2,729,191	1,000,352	3,872,704	1,370,411	3,428,397	72,684
1885	2,395,424	114,608	2,669,696	900,639	3,415,170	1,107,919	2,496,408	68,495
1886	2,190,604	105,169	2,887,156	924,178	4,163,264	1,505,803	2,004,702	45,227
1887	2,240,913	91,128	4,074,184	1,229,044	4,595,810	1,633,657	1,784,642	35,644
1888	3,038,856	131,202	3,965,574	1,256,971	4,765,003	1,727,290	1,863,508	38,290
1889	2,781,755	133,350	3,063,385	995,946	2,085,889	885,669	846,957	21,806
1890	2,009,189	82,490	2,823,964	917,369	625,701	154,624	911,573	21,035
1891	2,039,927	81,837	3,628,401	1,364,406	457,830	173,275	815,491	22,038
1892	1,138,676	43,900	2,538,685	917,206	308,337	156,466	202,971	11,929
1893	1,021,946	40,540	3,444,550	855,819	258,777	95,268	195,194	6,175
1894	678,412	25,065	1,890,770	435,751	178,154	54,666	217,847	6,621
1895	474,790	21,170	3,089,310	684,697	27,319	8,919	120,402	2,976
1896	490,132	22,551	3,293,603	763,892	39,978	15,265	157,603	3,180

	Glue.		Glue, Fish or Isinglass.		Glycerine, Crude.		Glycerine, Refined.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	1,702,108	150,642	.....	2,038	Included in refined.		729,476	91,187
1873	1,328,542	162,574	275,714	123,439	.....	.....	1,160,458	116,172
1874	1,148,195	158,069	187,384	96,244	.....	.....	764,378	72,626
1875	1,747,741	226,330	117,900	52,404	.....	.....	1,386,717	85,997
1876	1,319,776	159,293	73,552	42,322	.....	.....	1,999,421	90,362
1877	1,112,527	131,678	75,267	32,236	.....	.....	1,936,244	124,923
1878	1,033,439	125,706	159,344	104,552	.....	.....	2,736,106	109,516
1879	1,156,832	122,430	287,625	202,765	.....	.....	3,763,718	208,512
1880	3,011,627	280,147	530,719	198,025	.....	.....	3,976,995	238,311
1881	1,888,005	243,353	393,801	243,238	.....	.....	6,699,531	675,334
1882	3,758,064	414,033	289,165	169,148	.....	.....	6,588,545	1,139,600
1883	4,236,134	450,361	304,991	189,575	.....	.....	6,780,217	1,017,772
1884	4,455,693	451,362	72,504	36,310	3,807,250	391,657	2,714,087	391,274
1885	3,105,197	327,167	59,178	45,104	5,899,511	317,775	1,604,097	153,813
1886	4,195,609	433,718	57,483	37,131	7,920,766	396,637	2,282,175	171,839
1887	5,038,609	479,756	132,176	61,612	10,245,356	826,745	1,786,748	189,339
1888	5,282,248	483,422	78,379	35,455	9,502,014	954,807	1,193,728	152,885
1889	5,059,492	452,568	18,757	18,676	9,826,820	824,817	736,420	86,108
1890	5,776,956	478,417	6,306	11,983	11,811,308	972,001	210,545	26,186
1891	5,441,136	485,595	18,222	17,976	11,983,796	874,161	446,042	43,941
1892	5,272,379	489,093	13,957	13,741	13,594,008	747,218	661,339	58,953
1893	5,931,994	551,902	36,890	16,314	14,325,111	768,565	284,785	24,394
1894	4,139,946	397,491	5,352	5,934	9,157,205	554,374	111,401	11,192
1895	4,735,530	421,862	8,020	5,407	16,199,483	904,907	249,226	24,583
1896	6,210,827	548,207	5,849	5,872	20,801,917	1,431,578	371,802	36,925

TOTAL IMPORTS (Continued).

	Grease, Soap.		Grease, Wool		Grease, other.		Guano.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Tons.	Dollars.
1872	.....	.....	.....	.....	.....	47,247	15,279	423,332
1873	1,430,105	54,222	.....	.....	.....	50,204	6,755	167,711
1874	317,466	13,409	.....	.....	.....	52,313	10,767	261,085
1875	329,595	10,898	.....	.....	.....	92,363	23,925	535,808
1876	340,220	11,131	.....	.....	.....	75,099	19,384	710,135
1877	112,587	5,040	.....	.....	3,140,974	116,935	25,580	873,459
1878	140,939	6,578	.....	.....	4,078,256	174,576	23,122	849,607
1879	233,662	14,198	.....	.....	2,748,146	125,681	17,704	634,546
1880	291,125	15,138	.....	.....	5,460,913	189,170	8,619	108,733
1881	253,808	12,809	.....	.....	4,048,128	175,883	23,452	399,552
1882	1,393,576	67,156	.....	.....	4,297,277	173,488	46,699	854,463
1883	3,701,302	207,932	.....	.....	6,292,344	202,618	25,187	537,081
1884	2,353,915	112,206	Previous to 1891 included in "Grease, Other."		4,622,218	160,501	28,091	588,033
1885	1,581,365	76,883			6,557,717	174,352	19,976	393,039
1886	1,570,602	67,756			8,687,868	181,617	14,383	341,647
1887	1,596,294	52,420	.....	.....	8,881,134	125,484	12,981	338,467
1888	1,340,666	46,586	.....	.....	9,397,569	117,903	8,042	154,937
1889	2,202,963	82,268	.....	.....	9,138,662	129,191	14,407	289,745
1890	1,360,129	57,284	.....	.....	12,560,309	206,329	8,432	111,811
1891	2,611,262	108,422	7,683,060	191,371	4,563,255	93,874	11,170	194,157
1892	1,947,986	64,310	8,676,996	194,464	82,384	4,727	4,199	61,264
1893	4,888,348	190,896	11,693,850	196,848	469,418	41,340	4,170	71,700
1894	3,955,530	132,535	7,694,040	109,953	492,585	35,868	5,165	96,605
1895	15,148,000	427,601	13,758,135	196,98	.....	51,386	4,751	72,515
1896	16,560,166	447,350	11,652,921	196,991	.....	40,273	5,072	52,697

	Gum Aloes		Gum Arabic.		Gum Trag.		Indigo.		Indigo Aux.
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Dollars.
1872	205,925	25,450	2,733,585	501,936	261,052	97,764	1,458,735	1,496,877	.....
1873	173,855	19,545	2,370,762	367,061	345,836	70,774	1,184,728	881,251	.....
1874	112,079	16,635	3,021,617	385,292	237,281	96,962	1,122,632	977,954	.....
1875	129,336	16,999	2,209,421	273,076	327,408	104,090	874,495	647,274	.....
1876	96,489	10,092	2,494,059	288,085	198,030	67,045	989,783	787,949	.....
1877	119,447	14,636	2,466,895	299,196	439,729	173,606	1,509,911	1,304,142	.....
1878	179,417	23,401	2,340,754	337,747	453,824	117,307	1,842,382	1,544,352	.....
1879	149,407	18,120	2,666,272	362,365	478,960	172,832	1,614,029	1,492,247	.....
1880	168,034	19,741	3,427,583	437,910	503,689	190,926	2,689,192	2,775,907	.....
1881	171,303	24,878	3,484,288	389,420	315,918	127,312	1,699,754	1,541,664	.....
1882	230,624	33,289	3,972,048	374,486	454,259	159,790	3,083,088	2,875,617	.....
1883	301,269	37,828	4,173,395	447,737	434,054	124,200	3,902,783	3,475,115	.....
1884	221,700	31,784	3,638,178	534,042	306,117	117,827	2,674,662	2,267,048	2,043
1885	423,329	41,206	1,420,637	305,023	184,865	65,637	3,039,234	2,010,666	22,062
1886	384,716	36,906	1,035,453	218,341	276,733	96,525	2,964,602	2,261,574	49,228
1887	281,052	19,995	482,457	166,763	220,137	82,573	3,469,182	2,734,117	49,756
1888	402,708	23,126	918,356	260,732	423,562	154,145	3,118,133	2,235,663	45,517
1889	246,270	19,110	709,695	172,195	416,681	140,001	3,553,795	2,686,454	84,969
1890	206,746	14,655	1,035,239	189,077	458,989	139,962	2,824,083	1,827,937	108,531
1891	372,764	22,532	986,760	124,235	757,404	211,183	2,089,500	1,600,865	61,155
1892	255,394	15,386	415,820	61,551	632,833	187,607	2,460,635	1,772,506	90,396
1893	288,467	15,378	943,711	108,816	756,847	252,692	3,226,314	3,137,511	115,086
1894	267,395	12,793	1,096,091	109,593	595,822	188,325	1,717,635	1,218,580	47,329
1895	275,577	11,553	1,462,421	139,253	828,909	255,580	3,411,539	1,940,250	62,433
1896	420,412	15,431	1,470,009	172,287	859,506	240,026	2,707,928	1,571,018	32,287

	Indigo, Carmine.		Indigo, Extract.		Insect Powder.		Iodine, Crude.		Ipecac.	
	Lbs.	Dollars.	Lbs.	Dollars.	Dollars.		Lbs.	Dollars.	Lbs.	Dollars.
1872	.....	.....	.....	68,826	.....		81,437	292,998	32,490	34,388
1873	.....	.....	371,945	52,979	67		48,991	206,783	25,891	22,049
1874	.....	.....	535,445	65,172	.....		23,861	99,305	26,202	19,516
1875	.....	.....	446,227	59,778	.....		26,058	74,357	7,542	5,630
1876	.....	.....	612,475	71,889	9,572		24,913	55,448	15,038	14,261
1877	.....	.....	897,499	99,299	22,477		50,123	111,494	15,020	14,732
1878	.....	.....	829,536	8,088	39,847		73,687	230,041	17,626	19,898
1879	.....	.....	112,887	11,288	57,744		31,779	122,571	29,108	29,325
1880	.....	.....	1,674,276	161,114	71,652		104,703	501,957	25,591	25,777
1881	.....	.....	1,543,185	141,164	67,690		162,863	336,998	39,385	41,372
1882	.....	.....	1,931,940	175,731	45,120		119,952	113,311	38,987	33,372
1883	.....	.....	2,388,961	194,107	23,342		140,642	162,036	35,648	26,039
1884	24,141	28,930	1,716,459	130,007	4,947		153,550	173,251	18,066	11,850
1885	14,211	16,265	1,378,636	104,169	65,153		238,994	310,015	27,355	16,661
1886	19,407	19,447	1,974,255	139,477	97,044		91,471	82,665	12,427	8,836
1887	29,168	33,025	1,528,632	109,131	129,783		118,063	174,400	29,560	24,289
1888	29,380	31,811	880,954	57,997	127,913		208,950	554,732	20,387	21,794
1889	36,964	38,315	900,727	57,247	89,429		186,987	383,519	30,034	45,555
1890	24,962	31,391	913,813	57,259	46,298		245,202	537,739	29,541	48,641
1891	28,175	33,145	881,969	58,288	23,698		241,186	382,009	30,484	53,505
1892	23,600	28,638	826,937	58,845	17,691		164,185	167,893	38,329	69,529
1893	29,687	35,304	1,317,835	101,347	15,765		327,248	589,186	41,995	58,840
1894	12,504	16,907	829,380	66,474	16,027		401,501	587,127	34,498	41,349
1895	25,030	31,758	543,333	51,223	786		31,374	48,350	24,360	23,356
1896	34,967	42,369	590,664	55,361	2,134		291,895	566,908	34,225	40,372

	Jalap.		Kainit and Kieserit.		Lac, Crude and Stick.		Lead, Acetate, White.		Lead Nitrate.	
	Lbs.	Dollars.	Tons.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	28,500	12,177	....	....	95,097	16,549	35	6	625,658	42,723
1873	46,786	14,919	....	....	48,305	13,241	....	....	428,017	31,538
1874	116,053	19,476	....	....	67,536	19,622	13	7	62,025	26,544
1875	106,388	10,248	....	....	127,779	36,910	58	15	374,610	25,650
1876	4,595	428	....	....	104,873	22,003	....	....	232,714	15,976
1877	17,147	2,527	....	....	47,063	9,592	....	....	129,032	8,781
1878	25,323	3,395	....	....	58,509	8,726	76	13	32,818	2,327
1879	38,656	6,134	....	....	220,075	26,773	89	22	....	....
1880	71,835	13,774	....	....	113,232	20,357	49	8	25,042	1,984
1881	76,986	12,256	....	....	194,700	52,760	34	5	179,261	10,651
1882	93,628	13,797	....	....	279,924	68,962	....	....	136,736	8,431
1883	41,473	6,565	....	....	406,472	75,956	493	24	24,961	1,524
1884	140,296	20,665	126,168	757,014	119,668	19,323	63,922	3,000	212,278	11,393
1885	96,651	10,300	84,220	483,780	153,622	25,230	58,996	2,611	....	....
1886	117,115	9,440	102,591	650,689	428,748	49,995	18,710	844	....	....
1887	71,377	5,995	76,551	446,018	467,084	49,892	36,589	1,674	12,331	584
1888	124,088	15,200	57,500	327,565	209,177	32,260	14,127	784	12,219	612
1889	24,043	3,347	96,788	599,468	616,886	74,859	24,889	1,275	27,543	1,318
1890	52,989	7,526	62,871	422,225	459,582	60,346	18,665	889	8,382	385
1891	92,107	24,141	85,876	605,309	795,757	127,547	13,279	707	639	46
1892	112,601	24,017	105,873	666,458	593,199	93,302	1,220	101	2,025	102
1893	144,057	26,487	65,537	419,760	358,860	59,885	2,185	154	79	13
1894	131,410	22,033	76,143	493,972	273,596	46,845	3,217	220	893	51
1895	130,066	25,386	78,088	441,915	409,117	70,255	62,616	3,042	45,484	1,784
1896	243,093	29,448	67,193	320,755	374,773	62,504	48,060	1,873	19,823	767

	Lead, Pig.		Lemon, Lime & Orange Juice.		Licorice Paste.		Licorice Root.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	73,086,657	2,929,623	.....	12,224	2,690,558	362,415	3,977,461	88,527
1873	72,423,641	3,233,011	186,845	69,802	3,040,809	304,581	11,572,889	278,464
1874	46,205,154	2,281,817	290,199	93,709	1,440,031	183,391	12,515,177	293,684
1875	27,078,412	1,287,687	438,618	92,904	1,308,750	167,578	12,059,168	290,204
1876	1,833,704	85,123	402,173	75,483	388,195	46,386	10,789,958	231,188
1877	14,583,845	671,482	433,328	95,678	1,075,220	140,109	11,072,005	240,870
1878	6,717,052	294,233	376,425	58,628	692,919	87,720	18,461,437	339,468
1879	1,126,500	42,983	268,231	37,185	807,075	104,234	23,048,267	463,870
1880	6,736,706	246,015	871,613	111,033	874,386	111,581	20,716,523	406,973
1881	4,322,068	159,129	872,900	111,072	874,044	111,194	29,927,501	575,720
1882	6,079,304	202,603	470,323	57,302	821,419	104,118	37,671,313	1,019,526
1883	4,037,867	130,108	683,087	67,016	833,768	106,891	26,931,448	638,257
1884	3,072,738	85,396	.....	73,462	1,062,363	127,399	39,078,080	800,191
1885	5,862,474	143,103	.....	58,516	982,813	116,372	30,155,028	631,844
1886	11,005,083	294,856	.....	103,670	1,166,560	152,191	58,587,094	1,248,997
1887	11,148,211	323,256	.....	125,707	1,068,115	142,602	77,484,684	1,670,041
1888	7,035,625	189,989	.....	94,378	1,118,625	136,028	49,165,

Wheeler's Patent Wood Filler.

Not only continues to be the standard in this line, but is unequalled for perfectly and permanently filling the pores of hard wood. It is the only filler that will develop and bring out the latent beauty of the natural wood.

Wheeler's Patent Liquid Wood Filler.

This filler is adapted for close grained woods, whitewood, pine, etc., and will do for wood of that kind what the Wheeler Paste Filler does on more open grained wood.

Breinig's Lithogen Silicate Paint.

More than twenty-five years' tests of this paint has proven it to stand where white lead and oil, and all other paints fail; especially designed for buildings exposed to sea air or severe climates. For this article we desire to secure agents where we now have none, and such agents are given the exclusive sale thereof.

Breinig's Lithogen White Lead.

A composition of lead, zinc and silica, spreading over one-third more surface than white lead and oil, and more than twice as enduring.

Breinig's Lithogen Primer.

A perfect wall size. Stops the suction on brick and stone work outside, also stops the suction inside on plaster work, and prevents dampness coming through, and it will prevent saltpeter coming through where other methods have failed.

Breinig's Floor Polish.

A superior article for hard wood floors. Get information from us as to how to treat new and old hard wood floors.

Silex.

We are the largest producers of this article and make it in all grades from the very finest impalpable powder for paint and wood filler purposes to the coarser grades for the manufacture of scouring soaps.

Wood Stains or Dyes, Varnishes, Blackboard Paint, Enamel Paint, Japans, Dryers, Etc.

Sole Manufacturers: **The Bridgeport Wood Finishing Co.,** New Milford, Conn.

NEW YORK: 240 Pearl Street. | CHICAGO: 215 E. Lake Street. | BOSTON: 85 Oliver Street.

GRANVILLE M. BREINIG, Pres. & Gen. Mgr. EDWARD E. PORTER, Vice-Pres.

TOTAL IMPORTS—(Continued.)

	Lime, Chloride.		Lime, Citrate.		Lime, Acetate.		Linseed.		Litharge.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Bush.	Dollars.	Lbs.	D'lars.
1872..	35,043,050	930,953	.....	.....	2,083,603	73,310	2,753,309	4,020,535	66,544	3,396
1873..	44,155,383	1,259,971	7,000	280	2,124,325	78,189	2,670,765	4,223,936	40,799	2,379
1874..	39,184,641	1,027,644	.....	.....	1,369,505	50,503	2,647,200	4,292,912	25,687	1,440
1875..	48,483,540	1,059,371	.....	.....	2,232,401	73,926	3,479,777	5,729,095	15,767	950
1876..	46,934,185	850,216	.....	.....	1,998,119	60,497	2,737,906	3,891,082	47,054	2,562
1877..	47,592,989	711,601	.....	.....	667,773	15,154	1,517,425	2,024,482	40,331	2,347
1878..	49,576,396	602,201	.....	.....	44,626	1,340	1,284,862	1,880,197	28,190	1,499
1879..	61,026,447	661,325	.....	.....	.....	.....	1,240,621	1,964,885	38,495	1,667
1880..	76,648,304	985,592	9,512	1,627	3,800	76	1,428,185	2,205,872	27,389	1,222
1881..	74,621,420	820,073	.....	.....	.....	.....	797,911	1,126,370	63,058	2,568
1882..	91,463,540	826,775	.....	.....	.....	.....	598,761	766,035	54,592	2,191
1883..	94,395,405	943,696	14,285	2,512	.....	.....	762,627	824,944	34,850	1,312
1884..	99,451,842	1,081,104	.....	.....	.....	.....	2,900,149	3,131,480	54,183	1,767
1885..	94,608,380	1,453,937	.....	.....	.....	.....	2,500,339	2,750,333	35,283	1,091
1886..	98,046,208	1,354,019	.....	.....	.....	.....	1,071,908	1,146,070	23,770	794
1887..	103,097,847	1,573,168	42,558	6,004	.....	.....	415,304	418,031	47,783	1,716
1888..	101,699,978	1,672,130	.....	.....	.....	.....	1,461,417	1,505,498	45,336	1,668
1889..	104,152,723	1,659,472	47,890	8,569	.....	.....	3,374,110	3,069,640	55,863	1,979
1890..	89,111,342	1,385,080	.....	.....	.....	.....	2,386,872	2,826,670	29,121	1,032
1891..	111,156,006	1,431,470	28,358	4,337	.....	.....	1,479,238	1,629,909	87,970	3,434
1892..	110,796,147	1,840,056	220,468	30,459	.....	.....	251,058	277,913	61,713	2,000
1893..	120,780,233	2,212,606	629,739	75,271	.....	.....	145,935	187,826	75,394	2,383
1894..	81,610,063	1,507,076	443,981	52,137	.....	.....	481,180	600,398	30,419	879
1895..	92,796,984	1,646,184	608,214	59,458	.....	.....	4,166,914	4,533,900	75,003	2,118
1896..	102,111,989	1,579,921	608,106	66,388	.....	.....	661,536	732,430	72,203	2,166

	Logwood.		Mace.		Madder Root.		Madder Extract.	
	Tons.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.
1872	.....	.....	60,622	44,944	7,758,667	799,652	.....	1,153,586
1873	45,983	641,697	99,410	77,101	9,334,515	794,088	8,523,141	1,768,191
1874	32,410	459,781	63,755	49,477	1,903,010	143,247	7,511,013	1,226,602
1875	32,492	691,972	67,912	50,536	2,992,863	148,816	9,007,933	1,364,204
1876	37,549	1,160,847	47,554	30,019	2,911,981	151,046	9,011,682	912,784
1877	46,581	848,444	70,682	37,697	3,138,558	141,474	5,565,031	583,958
1878	63,422	1,133,285	80,465	37,263	1,087,431	49,397	5,276,197	572,874
1879	61,517	1,103,321	65,247	22,337	1,582,068	81,291	2,588,231	193,383
1880	78,606	1,467,144	86,914	30,111	4,221,108	200,099	2,914,081	215,099
1881	72,018	1,362,984	82,529	33,200	662,945	41,063	1,725,364	140,773
1882	76,573	1,398,648	72,378	26,472	786,270	57,927	2,073,796	162,788
1883	77,737	1,338,750	64,249	20,093	1,544,534	92,716	134,448	10,389
1884	55,922	875,291	217,677	69,036	1,458,313	111,456	253,385	13,521
1885	56,508	904,205	181,906	50,714	1,211,370	80,628	.....	.....
1886	80,500	1,365,644	122,009	30,653	1,984,021	111,325	1,236	508
1887	59,269	1,044,219	161,042	52,198	1,049,860	64,935	106,539	8,779
1888	78,474	1,533,505	144,130	63,780	1,064,066	59,416	.....	.....
1889	70,260	1,467,918	197,971	85,837	917,912	52,834	.....	.....
1890	66,768	1,501,566	157,265	73,808	912,866	52,090	.....	.....
1891	84,381	1,842,954	186,801	85,977	673,260	39,806	.....	.....
1892	60,298	1,233,592	235,406	110,439	518,786	52,063	.....	.....
1893	56,404	1,218,934	239,206	93,151	653,779	61,720	.....	.....
1894	53,709	1,313,376	181,130	52,615	262,563	17,576	.....	.....
1895	60,683	1,478,618	260,010	70,064	329,477	18,541	.....	.....
1896	66,074	1,522,069	238,632	62,468	318,313	15,746	.....	.....

	Magnesia, Calcined.		Magnesia, Carb.		Magnesite.		Manganese. Oxide.		Manna.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	D'lars.
1872	17,427	5,394	102,669	11,851	.....	.....	.....	9,768	36,801	16,943
1873	20,006	6,403	120,902	12,904	.....	.....	1,226,157	11,714	29,528	9,786
1874	12,988	4,499	192,069	20,138	.....	.....	1,507,448	16,704	9,256	3,491
1875	26,251	7,492	185,109	17,543	.....	.....	1,119,893	16,300	9,336	3,669
1876	8,936	2,915	243,843	27,910	.....	.....	386,408	5,805	28,714	10,748
1877	22,196	7,987	246,296	27,642	.....	.....	1,336,136	15,747	39,948	12,453
1878	14,154	5,482	355,477	38,726	.....	.....	3,068,634	31,571	27,312	7,168
1879	19,535	7,267	227,284	25,816	.....	.....	554,372	12,094	24,187	7,674
1880	13,826	4,542	288,598	30,350	.....	.....	1,864,908	19,825	28,048	7,918
1881	20,815	6,182	359,140	35,232	.....	.....	1,283,457	20,432	35,456	15,061
1882	20,826	6,076	188,769	21,107	.....	.....	2,225,936	38,879	55,293	14,337
1883	14,228	4,187	261,295	27,149	.....	.....	1,425,274	28,952	21,770	8,832
1884	16,728	4,668	240,381	25,207	397,465	1,501	151,436	4,337	21,348	14,841
1885	10,970	3,042	91,847	9,505	117,037	577	62,511	1,401	37,621	14,492
1886	12,647	3,200	72,509	6,836	1,676,716	6,245	128,289	2,600	38,508	10,811
1887	3,721	922	77,072	6,652	274,920	1,101	196,896	2,624	39,507	16,025
1888	8,284	2,033	98,283	7,885	5,014	14	395,209	7,551	31,703	10,402
1889	8,647	2,013	85,148	6,461	1,162,564	6,499	389,779	6,342	25,246	7,947
1890	6,539	1,561	86,178	6,395	1,145,957	4,447	425,880	7,931	43,509	10,801
1891	7,157	1,558	77,015	5,003	2,692,477	6,004	393,091	7,858	24,792	7,411
1892	6,603	1,709	54,910	4,185	5,152,212	7,953	397,942	8,181	49,335	11,668
1893	21,486	4,225	66,316	4,944	8,209,600	10,792	874,340	20,677	14,482	5,406
1894	2,949	1,419	28,797	2,330	2,466,250	2,339	591,895	11,954	41,661	10,870
1895	4,004	1,649	43,245	3,292	.....	.....	149,145,037	545,236	85,644	9,924
1896	3,050	1,520	28,057	2,697	.....	.....	133,401,983	567,487	30,824	5,342

	Milk Sugar.		Morphine and Salts.		Musk.		Nutmeg.	
	Pounds.	Dollars.	Ounces.	Dollars.	Ounces.	Dollars.	Pounds.	Dollars.
1872	.....	3,233	240	701	3,928	22,471	860,727	425,180
1873	.....	6,370	588	1,702	3,947	25,504	929,747	561,291
1874	.....	8,337	1,309	4,340	4,644	31,145	854,001	557,538
1875	.....	9,009	4,252	13,102	3,061	25,785	882,914	650,675
1876	.....	551	3,285	9,007	4,236	30,343	775,013	530,161
1877	.....	.....	1,403	8,083	5,991	33,336	780,730	478,466
1878	.....	22,000	3,002	7,123	7,722	34,890	848,282	459,445
1879	.....	25,430	3,490	6,376	9,080	44,316	917,634	443,373
1880	.....	21,084	19,386	38,376	7,221	38,128	1,064,084	564,079
1881	.....	.....	22,358	55,531	3,049	20,502	909,505	573,917
1882	142,774	32,775	23,239	43,359	5,695	23,537	1,036,214	572,496
1883	116,779	22,661	16,782	30,558	11,012	42,245	661,132	361,842
1884	142,934	30,057	27,850	47,175	15,890	109,618	1,942,124	968,702
1885	85,925	19,813	20,710	34,713	9,587	59,377	1,053,207	459,559
1886	287,247	56,936	17,611	26,758	15,426	83,892	1,189,456	458,342
1887	262,882	48,581	14,311	24,456	14,931	117,810	1,290,145	539,945
1888	133,898	19,656	19,154	33,342	21,605	176,230	1,246,866	603,605
1889	85,925	19,813	20,710	27,710	14,191	118,163	1,175,149	524,929
1890	339,684	46,510	19,954	27,701	8,951	56,797	1,045,040	535,290
1891	251,408	42,330	29,564	42,260	6,167	59,291	1,324,893	684,277
1892	236,869	34,803	38,758	42,301	6,442	47,647	1,582,794	751,946
1893	98,785	12,089	23,580	25,035	9,724	56,228	1,419,476	613,676
1894	31,346	3,499	29,076	36,452	9,880	56,954	1,139,875	395,647
1895	14,117	1,828	16,029	18,567	9,055	58,371	1,650,418	513,771
1896	16,365	2,162	807	1,083	12,288	74,708	1,354,949	483,389

	Nux Vomica.		Oil Cake.		Oil, Caraway.		Oil, Cassia.		Oil, Castor.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Gals.	Dollars.
1872 ...	496,639	13,932	.....	.....	5,721	8,034	14,090	13,294	5,458	4,261
1873 ...	176,426	5,416	196,300	4,491	4,680	6,963	42,913	47,586	1,516	2,776
1874 ...	297,313	7,652	1,744,113	30,023	8,873	10,771	12,752	13,805	900	951
1875 ...	358,343	9,938	2,141,275	34,720	6,241	8,678	62,773	52,404	758	941
1876 ...	546,095	13,812	1,796,938	47,700	6,614	10,224	41,410	35,009	648	873
1877 ...	459,974	8,497	2,024,240	41,590	5,528	9,026	25,204	22,858	612	624
1878 ...	755,010	16,811	3,325,980	45,703	5,966	10,444	52,043	37,906	422	373
1879 ...1,114,766		15,978	2,743,173	34,588	8,629	11,235	34,071	21,710	711	725
1880 ...	832,953	14,808	737,922	80,728	7,723	10,795	103,482	69,220	488	328
1881 ...1,172,909		17,649	2,243,212	26,376	7,522	10,799	104,116	79,742	1,464	959
1882 ...	802,871	12,102	1,962,086	34,011	9,143	11,057	56,645	47,267	904	706
1883 ...	514,237	6,156	693,791	9,939	8,275	9,045	79,378	60,802	418	673
1884 ...	523,005	8,314	57,202	1,683	6,573	8,653	96,268	74,919	4,629	2,028
1885 ...	935,136	14,648	817,116	10,495	7,344	9,586	96,938	74,813	13,937	6,192
1886 ...1,107,086		18,754	2,775,814	38,693	10,180	17,872	89,054	53,862	13,644	5,767
1887 ...1,530,032		16,777	4,141,978	58,512	4,325	5,517	68,990	37,425	1,507	619
1888 ...	744,181	11,568	4,402,319	58,392	8,260	9,193	73,357	46,317	1,636	789
1889 ...	426,891	8,518	4,335,120	52,831	6,226	7,476	62,101	40,199	3,694	1,474
1890 ...1,050,408		23,752	2,954,171	38,577	7,381	5,671	27,562	21,194	6,901	2,910
1891 ..	1,394,013	32,930	2,674,053	23,846	8,110	4,941	27,960	22,732	2,073	1,287
1892 ...1,392,437		34,038	10,707,116	106,811	6,054	5,597	95,626	66,642	382	282
1893 ...1,720,315		41,567	7,283,567	82,916	9,560	7,032	59,832	48,215	286	228
1894 ...1,720,056		39,821	7,499,518	37,170	8,794	8,895	45,317	34,170	1,703	863
1895 ...	595,497	9,620	6,511,851	47,386	9,991	11,182	48,629	41,101	2,523	709
1896 ...1,275,500		15,668	17,522,008	52,867	12,344	14,245	50,932	66,747	22,888	8,146

TOTAL IMPORTS—(Continued.)

	Oil, Aniline.		Oil, Anise.		Oil, Bergamot.		Oil, Cajeput.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1873	.....	27,493	9,688	16,780	23,960	74,468	2,678	1,341
1873	.....	35,929	25,378	47,111	62,988	244,526	2,101	1,022
1874	107,041	32,644	4,247	8,662	44,753	214,288	3,071	1,572
1875	73,324	22,781	19,024	34,963	39,654	220,135	6,016	3,808
1896	16,906	5,373	24,004	44,542	41,857	137,864	3,150	1,763
1877	42,538	14,267	20,532	30,219	21,697	94,437	1,129	733
1878	179,783	55,132	4,000	5,857	40,451	129,134	3,227	2,077
1879	228,409	60,298	12,705	20,152	44,720	109,661	4,314	2,897
1880	161,424	39,818	57,933	109,693	56,117	142,096	12,035	7,627
1881	69,899	18,556	27,232	49,660	41,796	95,390	7,019	4,421
1882	168,697	51,020	24,037	49,215	51,781	105,615	3,910	2,119
1883	399,697	141,816	30,659	48,817	21,435	42,360	6,280	3,017
1884	228,419	59,381	18,660	29,532	75,084	119,611	3,303	1,519
1885	482,777	101,857	24,066	33,715	34,632	50,482	770	341
1886	623,147	101,251	27,196	38,540	46,891	69,794	2,958	1,041
1887	673,017	98,983	33,925	50,069	54,570	83,077	4,568	4,596
1888	661,657	95,475	46,847	67,902	63,271	118,203	7,903	2,967
1889	923,664	142,056	51,149	63,854	53,747	90,015	5,983	2,524
1890	610,875	97,801	33,218	44,678	49,284	91,440	6,396	3,602
1891	1,489,908	299,662	37,335	55,556	44,109	131,801	22,260	9,827
1892	1,428,070	253,248	33,218	47,345	60,440	148,777	2,744	954
1893	1,211,818	163,539	75,595	91,635	66,745	146,713	3,627	1,394
1894	951,671	115,141	11,391	14,214	52,644	90,145	6,866	2,468
1895	1,315,934	143,426	43,453	56,373	40,048	84,049	12,747	4,860
1896	1,364,674	164,238	14,917	29,408	43,998	87,264	4,991	1,735

	Ocher, in Oil.		Ocher, Dry.		Oil, Almond, Bitter.		Oil, Almond, Sweet.		Oil, Amber, Crude and Refined.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	247,617	9,225	6,646,343	56,680	1,487	13,669	30,938	9,018	5,531	1,046
1873	94,245	3,850	3,940,786	51,318	14,986	24,762	32,798	12,850	4,724	1,913
1874	98,176	4,624	3,212,988	35,365	3,263	10,852	17,123	5,370	2,462	713
1875	280,517	12,332	3,282,415	37,929	4,596	14,939	29,248	10,783	1,305	326
1876	63,916	3,365	3,962,646	47,405	1,998	8,185	19,338	7,424	2,190	632
1877	41,718	2,269	3,427,208	32,924	1,602	6,617	26,966	10,984	3,445	847
1878	25,674	1,591	3,910,947	33,260	1,860	8,446	28,943	11,293	3,943	1,120
1879	17,640	1,141	3,792,850	42,563	1,310	5,044	18,526	7,492	4,784	1,267
1880	91,293	4,233	4,602,546	52,120	1,996	7,564	28,812	11,138	3,650	1,310
1881	99,431	4,676	3,414,704	46,069	3,642	12,342	34,325	12,641	6,211	1,431
1882	159,281	7,916	5,530,204	68,106	2,560	7,512	33,115	10,025	7,119	1,681
1883	137,978	6,143	7,022,615	90,593	4,093	10,506	39,664	11,778	6,631	1,557
1884	156,206	5,233	6,285,588	70,191	3,525	11,285	32,793	7,992	12,529	1,660
1885	79,467	3,763	5,312,564	52,825	4,378	9,501	40,925	10,010	7,934	1,012
1886	127,757	4,742	5,413,086	58,980	1,741	4,640	54,595	10,913	9,325	1,309
1887	47,258	6,653	5,435,725	54,239	1,677	4,619	38,925	10,108	19,152	1,980
1888	53,844	10,081	6,150,780	61,541	3,316	9,859	40,359	10,567	5,573	916
1889	60,488	9,202	6,351,518	58,074	3,005	9,114	42,813	9,836	16,678	2,541
1890	30,449	6,652	5,478,635	54,359	7,899	10,318	48,483	11,457	30,438	4,466
1891	60,519	7,321	6,762,722	72,244	4,795	9,958	51,384	12,249	3,444	894
1892	35,778	3,993	7,016,601	70,939	6,149	11,023	60,671	13,636	16,893	1,230
1893	40,674	3,106	7,167,847	71,236	8,166	11,533	212,919	39,584	4,716	701
1894	39,414	3,348	4,109,314	37,123	4,104	6,981	59,730	12,682	3,938	676
1895	8,555	497	6,027,113	49,165	6,549	10,556	74,595	13,504	6,764	1,131
1896	34,540	2,111	8,024,649	63,808	6,195	12,142	71,480	13,791	8,202	834

	Oil, Citronella.		Oil, Fennel		Oil, Coal-tar & Dead.		Oil, Cocoanut.		Oil, Cod Liver.	
	Lbs.	Dollars.	Lbs.	Dollars.	Gals.	Dollars.	Lbs.	Dollars.	Gals.	Dollars.
1872	21,625	13,679	866	1,312	.....	.....	1,201,712	76,858	264,842	123,624
1873	63,654	4,241	597	889	.....	.....	2,650,382	127,474	198,855	106,900
1874	27,636	17,299	186	375	.....	.....	845,370	58,821	181,759	121,225
1875	59,137	29,726	1,193	1,251	.....	.....	1,125,475	82,516	236,579	159,279
1876	65,896	34,311	170	207	.....	.....	1,090,512	74,026	108,798	86,538
1877	36,255	19,788	151	192	.....	.....	266,906	167,898	142,995	114,231
1878	77,203	42,007	337	313	.....	.....	210,092	125,899	297,222	190,753
1879	65,507	38,412	544	472	.....	.....	310,067	199,531	172,176	98,186
1880	54,087	41,532	1,517	1,415	.....	.....	4,129,662	300,954	315,910	153,746
1881	103,152	84,200	1,815	2,331	.....	.....	4,322,170	297,492	516,663	236,875
1882	109,664	81,781	928	700	.....	.....	7,964,776	428,221	306,374	165,566
1883	98,973	57,054	2,810	2,002	.....	.....	7,427,168	423,854	218,741	159,316
1884	110,593	56,465	3,109	2,168	119,634	6,507	6,106,115	378,295	32,282	40,627
1885	258,038	107,981	1,100	1,005	620,198	15,996	14,172,700	855,469	59,821	37,715
1886	257,662	75,660	3,503	2,596	381,423	15,932	11,765,223	651,748	115,454	67,652
1887	265,321	67,623	834	693	299,808	11,565	11,740,246	583,842	130,296	69,326
1888	379,352	103,773	1,346	1,060	366,961	14,931	14,966,610	762,123	145,773	74,120
1889	509,599	117,706	1,979	1,145	317,365	20,144	14,577,270	498,992	287,183	81,589
1890	174,447	39,818	525	350	714,529	25,375	14,679,583	688,539	267,555	86,476
1891	355,785	73,764	744	463	826,801	34,098	10,665,054	560,833	248,894	98,865
1892	477,622	113,750	428	317	1,136,653	52,063	22,142,858	1,287,989	202,959	115,577
1893	411,151	86,924	1,075	570	694,167	41,103	27,684,788	1,242,542	190,432	99,709
1894	274,259	56,911	265	292	Not classified.		16,262,392	785,998	209,865	99,318
1895	790,174	144,773	929	820	.. ..		31,722,014	1,340,208	207,145	131,804
1896	539,461	129,694	2,850	2,010	.. ..		27,407,234	1,165,814	179,660	203,588

	Oil, Lard.		Oil, Linseed.		Oil, Linseed, Raw.		Oil, Lubricating.		Oil, Mace.	
	Gal.	Dollars.	Gal.	Dollars.	Gal.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	166	784	1,690	1,495	6,726	4,647	.....	.....	65,083	194,657
1873	47	223	3,495	2,838	10,646	6,564	42,629	46,715	78,193	276,370
1874	21	197	1,015	609	6,099	3,922	33,664	38,168	71,582	238,640
1875	28	144	5,831	3,574	9,820	6,866	32,111	37,988	64,607	193,807
1876	2,995	1,394	4,495	2,789	4,062	3,690	35,034	38,429	73,752	180,784
1877	8,184	2,440	963	720	5,010	3,907	32,444	35,155	67,586	150,250
1878	19	201	343	260	2,813	2,957	38,709	38,047	56,159	114,573
1879	134	1,506	701	447	4,593	3,181	46,312	42,862	63,485	115,379
1880	112	363	782	488	7,760	5,549	57,035	55,162	113,799	215,604
1881	96	290	10,614	6,751	7,073	4,147	38,167	38,100	88,480	181,495
1882	125	263	25,692	13,740	7,171	6,475	54,929	82,226	107,322	215,076
1883	27	97	34,800	19,616	6,087	4,005	42,048	61,956	86,092	173,053
1884	2,555	527	48,616	24,774	5,714	3,075	70,170	66,544	234,748	353,316
1885	796	201	48,298	23,932	4,107	2,928	43,679	34,957	139,606	144,544
1886	218	191	70,732	29,134	6,101	3,605	67,838	62,691	108,382	149,171
1887	1,841	447	141,762	52,366	5,420	3,322	74,214	68,925	135,918	195,799
1888	377,747	7,544	157,457	60,645	6,380	3,097	80,604	81,146	162,125	193,583
1889	242,608	5,503	106,587	48,383	6,432	2,926	102,290	107,885	164,432	165,749
1890	166,458	6,802	116,635	59,356	6,605	3,154	138,581	106,109	197,387	184,643
1891	345,001	16,780	140,163	66,744	5,798	2,877	92,224	102,819	151,460	225,755
1892	420,670	16,286	118,420	58,127	6,108	3,582	95,677	97,134	176,789	334,538
1893	606,243	20,017	265,368	110,020	8 443	4,132	90,068	96,141	184,290	317,978
1894	429,334	10,145	241,231	95,098	7,835	4,207	71,252	76,997	178,035	202,645
1895	1,055,563	23,012	298,323	106,184	6,463	3,348	86,299	92,117	202,740	179,110
1896	887,881	18,192	358,702	136,108	7,110	4,163	116,016	119,700	172,885	166,337

	Oil, Limes.		Oil, Linseed.		Oil, Mace.		Oil, Olive, Not Salad.		Oil, Neroli.	
	Lbs.	Dol's.	Gals.	Dollars.	Gals.	Dollars.	Gals.	Dollars.	Lbs.	Dollars.
1872	....	....	14,987	10,454	969	827	98,595	74,449	....	....
1873	....	....	7,457	5,301	719	879	162,212	118,826	....	....
1874	....	....	68,874	38,788	1,005	333	107,387	77,705	....	....
1875	....	....	38,535	21,070	364	105	166,609	123,113	....	....
1876	....	....	3,400	2,181	2,442	567	91,317	61,306	....	....
1877	....	....	963	762	238	391	136,535	101,378	....	....
1878	....	....	6,661	3,571	163	349	74,830	61,474	....	....
1879	....	....	4,470	2,178	1,965	1,511

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See Page 66.

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TOTAL IMPORTS—(Continued.)

	Oil, Nut.		Oil, Olive, Salad.		Oil, Orange.		Oil, Palm.	
	Gallons.	Dollars.	Gallons.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.
1872	.....	....	184,733	324,668	Included in Lemon.		7,491,920	383,720
1873	85,745	38,357	181,978	319,979	" " "		6,737,200	335,870
1874	78,375	4,518	158,548	289,166	" " "		6,395,677	362,167
1875	49,567	3,467	179,004	341,412	" " "		4,712,030	250,658
1876	73,537	4,303	171,252	320,619	" " "		4,762,740	224,160
1877	10,310	5,001	186,528	361,599	" " "		6,826,535	384,719
1878	17,187	9,679	195,631	379,565	" " "		6,553,627	297,280
1879	12,094	5,986	192,529	365,362	" " "		6,718,530	320,310
1880	5,831	2,732	239,507	405,117	" " "		9,237,398	432,721
1881	18,428	8,683	216,788	380,428	" " "		6,993,817	309,355
1882	22,418	9,246	270,425	471,391	" " "		9,625,672	399,769
1883	121,552	61,571	218,708	389,653	" " "		5,193,368	219,142
1884	428,371	204,126	731,525	813,531	14,575	24,747	4,996,194	264,032
1885	386,486	187,881	484,040	569,600	10,962	14,086	7,352,517	334,634
1886	552,781	280,849	540,539	557,350	11,486	16,154	6,849,760	278,984
1887	283,773	83,857	726,473	364,592	14,957	21,676	5,882,798	217,111
1888	337,846	108,419	685,711	628,660	17,183	22,113	7,335,639	207,962
1889	438,534	174,132	906,880	705,853	21,871	24,309	3,498,490	107,679
1890	310,048	148,240	858,731	789,644	26,676	33,705	4,020,124	120,537
1891	346,343	137,341	600,936	731,006	27,952	44,500	3,507,223	135,879
1892	684,985	160,219	684,984	852,429	39,056	68,369	3,494,844	137,881
1893	693,593	161,131	693,593	901,694	38,541	65,248	6,492,451	289,174
1894	547,605	128,464	744,240	899,581	34,841	37,842	4,950,706	219,108
1895	386,669	117,590	776,900	953,533	35,541	36,933	5,292,032	230,595
1896	331,163	103,839	917,063	1,092,159	33,770	47,965	6,663,092	275,271

	—Oil, Poppy.—		—Oil, Rose.—		—Oil, Rosemary.—		—Oil, Seal.—	
	Lbs.	Dollars.	Ounces.	Dollars.	Lbs.	Dollars.	Gal.	Dollars.
1872	.....	.....	8,471	36,230	.....	.....	308	254
1873	.....	.....	9,532	56,416	.....	2,394	10	2
1874	.....	677	11,308	58,086	.....	7,293	354	173
1875	.....	945	10,661	66,164	.....	6,129	219	156
1876	.....	1,489	10,116	55,558	.....	6,099	20,594	23,263
1877	.....	661	17,538	91,718	.....	4,681	410	80
1878	.....	1,130	13,447	104,447	.....	4,031	24,282	11,368
1879	.....	1,142	6,209	38,998	.....	4,422	218	89
1880	.....	1,579	19,543	103,456	.....	7,961	4,287	1,938
1881	.....	1,279	13,168	75,130	.....	6,597	100	72
1882	20,281	1,947	21,933	122,130	25,169	15,711	76,380	30,861
1883	23,795	2,117	15,946	125,261	39,605	17,043	612	550
1884	26,481	2,503	23,356	172,403	29,966	14,134	14,868	7,719
1885	136,412	8,669	27,573	185,137	31,135	12,361	2,423	1,087
1886	287,461	17,030	30,901	152,214	34,510	14,977	2,561	943
1887	510,814	27,528	28,007	146,828	40,064	16,847	4,728	2,586
1888	630,958	40,139	42,414	193,879	41,954	19,815	1,216	573
1889	1,140,446	66,163	37,993	168,020	48,901	22,275	1,358	670
1890	1,217,029	72,706	40,405	170,600	43,141	22,332	2,574	758
1891	245,158	15,507	43,599	188,612	64,361	33,346	250	97
1892	35,018	2,770	46,361	217,078	29,972	16,527	27,712	9,046
1893	41,028	3,212	43,000	252,766	44,673	23,496	54,821	18,706
1894	23,790	1,922	28,413	197,748	23,098	12,577	7,869	2,956
1895	27,938	2,378	33,570	235,021	44,681	21,062	5,067	1,868
1896	24,623	2,066	35,275	245,509	70,419	41,671	9,332	3,682

	Oil, Sesame.		Oil, Thyme.		Oil, Valerian.		Oil, Whale & Fish, N. O. P. F.	
	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.	Gallons.	Dollars
1872	45,308	5,614	31,396	19,101	90	668	95,941	43,380
1873	125,986	13,787	76,590	31,937	133	672	62,448	24,923
1874	55,323	8,166	33,752	17,069	58	284	119,472	57,278
1875	97,708	11,173	49,126	20,913	30	145	97,694	42,929
1876	101,355	11,007	42,603	19,087	5	32	72,540	56,113
1877	109,001	10,694	33,570	13,025	103	616	46,331	22,219
1878	190,959	18,334	40,636	15,725	167	522	56,347	20,944
1879	257,760	25,449	42,465	19,438	74	446	74,355	30,789
1880	228,967	25,751	53,284	22,944	77	433	175,579	68,760
1881	405,390	40,516	61,798	31,002	117	690	270,507	135,121
1882	641,944	58,308	67,300	32,813	45	255	175,122	76,826
1883	1,010,168	85,172	66,000	30,287	60	299	264,382	120,754
1884	1,072,432	93,929	81,533	31,082	105	801	306,853	72,685
1885	803,717	66,603	60,580	18,200	136	692	116,229	30,875
1886	732,681	63,758	74,185	29,458	92	527	65,584	20,216
1887	90,770	7,617	94,158	33,513	152	895	52,553	13,927
1888	248,851	18,775	54,504	26,866	54	320	54,489	13,708
1889	367,350	26,175	64,899	25,651	6	20	98,500	23,679
1890	364,371	27,466	46,722	19,130	43	189	35,462	8,713
1891	328,091	22,804	49,487	20,549	.....	.....	51,015	14,813
1892	218,554	14,952	56,133	18,941	62	187	99,274	26,377
1893	283,934	18,668	48,051	22,679	72	161	107,193	25,297
1894	110,529	7,518	48,096	21,995	.....	.....	27,110	7,874
1895	158,348	10,017	52,464	31,416	.....	.....	4,275	812
1896	230,365	15,058	46,818	31,794	55	151	1,728	630

	—Opium, Crude.—		—Opium, Smoking.—		Orange Mineral.		Orris Root.		Paraffine.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	189,354	769,750	49,375	535,597	.....	.....	65,771	5,615	903	72
1873	152,770	734,797	53,059	581,656	.....	.....	49,922	5,749	415	229
1874	170,706	945,232	55,544	556,844	.....	.....	31,344	3,644	.....	.....
1875	188,239	953,429	62,744	662,066	.....	.....	32,787	3,207	.....	.....
1876	228,742	913,078	53,189	577,288	.....	.....	26,829	2,819	.....	.....
1877	230,102	997,692	47,430	502,662	.....	.....	27,803	3,085	.....	.....
1878	207,752	712,624	54,805	617,160	.....	.....	47,513	4,375	10	3
1879	278,554	929,894	60,648	643,774	.....	.....	66,302	5,759	50	13
1880	243,211	858,225	77,196	773,796	.....	.....	122,712	9,604	66	17
1881	382,059	1,791,415	76,446	761,341	.....	.....	108,132	11,192	430	53
1882	227,125	881,023	106,221	1,038,305	.....	.....	223,870	16,707	.....	.....
1883	229,011	747,794	298,152	2,684,589	.....	.....	113,788	18,467	487	44
1884	264,746	661,044	1,066	10,124	629,100	27,599	262,689	14,757	92,323	7,263
1885	351,609	914,601	37,475	335,383	693,781	28,557	150,749	7,249	30,798	1,491
1886	351,193	798,489	49,733	447,840	1,412,151	59,642	203,478	7,117	85,032	5,952
1887	468,153	1,069,918	60,902	549,040	1,621,803	69,513	278,073	11,350	.....	.....
1888	290,878	835,690	72,856	615,535	2,002,564	87,289	161,329	9,760	63,207	4,082
1889	472,937	1,068,374	79,851	544,290	1,869,869	82,566	112,064	8,424	83,750	3,960
1890	380,621	923,007	58,983	428,860	1,899,544	87,252	167,141	12,434	54,748	3,606
1891	621,749	1,582,461	61,541	553,369	1,827,569	87,405	230,448	25,326	62,439	4,880
1892	587,122	1,029,203	78,526	558,857	1,172,111	54,018	184,649	25,591	99,059	5,515
1893	612,511	1,178,305	66,679	471,658	1,666,650	74,024	284,302	43,425	120,670	11,186
1894	716,883	1,691,914	51,648	340,935	955,550	41,461	88,116	11,735	270,420	15,297
1895	357,981	729,074	6,765	37,946	46,592	1,982	292,565	33,564	88,679	5,230
1896	364,263	683,347	123,543	905,915	1,646,113	65,120	214,323	28,330	88,691	6,230

	—Palm, Kernels.—		—Pepper, Black & White.—		—Pepper, Cayenne.—		—Phosphate, Crude or Native.—		—Phosphorus.—	
	Dollars.		Lbs.	Dollars.	Lbs.	Dollars.	Tons.	Dollars.	Lbs.	Dollars.
1872	.....		7,794,870	633,858	136,593	9,651	.....	83,342	.....	29,153
1873	5,881		6,845,945	645,261	113,084	8,968	.....	218,110	.....	36,263
1874	.....		6,395,391	700,753	76,771	6,552	.....	243,467	.....	68,811
1875	75		8,003,050	924,788	157,378	17,816	.....	212,118	.....	28,746
1876	.....		7,845,416	785,833	358,677	30,699	.....	164,849	.....	32,700
1877	.....		7,468,004	717,844	72,374	8,347	.....	195,875	.....	56,474
1878	1,262		7,515,784	612,745	124,969	9,143	.....	285,089	.....	45,463
1879	959		7,851,560	523,257	110,520	6,625	.....	223,288	.....	35,743
1880	6,524		9,063,088	618,214	30,887	5,523	.....	317,069	.....	78,253
1881	819		8,667,813	742,244	92,186	12,245	.....	918,835	.....	52,113
1882	464		8,821,191	856,668	872,943	27,032	133,956	1,437,442	.....	70,442
1883	8,154		6,979,018	719,367	249,192	27,576	96,585	798,116	.....	78,646
1884	1,461		16,718,707	2,030,390	646,777	55,860	16,542	237,594	168,502	94,523
1885	6,849		8,674,356	1,178,373	476,929	38,647	21,419	264,079	140,899	77,827
1886	11,071		10,995,786	1,557,810	813,210	80,635	37,981	432,591	153,234	85,879
1887	5,611		12,521,353	1,768,679	752,181	53,254	26,334	247,911	195,810	100,321
1888	3,678		12,712,287	1,801,378	261,697	19,971	28,670	248,427	201,440	101,445
1889	5,237		11,013,253	1,554,450	399,819	27,653	34,407	333,957	248,790	125,923
1890	2,500		12,968,783	1,563,177	806,230	57,141	31,179	309,764	264,254	111,851
1891	1,273		13,871,442	1,372,818	2,302,126	133,091	32,583	287,057	151,166	53,590
1892	11,773		14,794,861	1,068,096	834,978	63,083	26,197	192,733	85,622	31,643
1893	4,266		21,466,707	1,278,022	903,581	64,355	21,526	180,696	89,874	44,068
1894	2,512		12,538,577	662,002	581,893	42,607	28,942	123,714	20,757	11,927
1895	Not pub-		19,737,422	791,853	557,650	36,779	24,130	159,169	4,950	2,534
1896	lished.		16,600,781	655,726	774,377	44,750	20,562	153,370	50,027	24,646

TOTAL IMPORTS—(Continued.)

	Pimento.		Pitch, Burgundy.		Plaster Paris Grd., Calc.		Plumbago.		Pyrites, Sulphur.	
	Pounds.	Dollars.	Pounds.	Dollars.	Tons.	Dollars.	Tons.	Dollars.	Tons.	Dollars.
1872	1,440,142	76,334	.....	.....	95,339	90,902	4,819	329,030	.....	.....
1873	1,461,004	68,606	7,735	32,200	118,926	122,495	7,841	545,332	.....	.....
1874	1,378,258	65,673	97,208	3,686	123,717	130,172	5,699	382,591	.....	.....
1875	1,722,014	83,195	49,227	1,815	93,772	115,664	2,325	122,050	.....	.....
1876	1,088,420	58,988	41,525	1,460	139,713	127,084	2,529	150,709	.....	.....
1877	1,013,308	70,767	68,851	2,248	.....	49,445	3,768	204,630	.....	.....
1878	1,221,631	90,554	60,281	1,917	.....	33,495	3,122	154,757	.....	.....
1879	1,276,782	108,419	59,988	1,952	.....	18,339	3,283	164,013	.....	.....
1880	1,745,215	134,781	123,090	3,368	120,327	120,642	5,495	278,022	.....	.....
1881	1,783,901	160,779	58,285	1,554	128,607	128,107	7,546	381,966	.....	.....
1882	1,291,099	106,630	147,053	3,404	5,737	53,475	7,971	363,835	.....	.....
1883	1,283,976	85,332	35,356	860	4,291	44,118	7,744	361,949	.....	.....
1884	4,758,299	221,845	104,579	2,267	166,310	168,000	7,204	286,393	.....	.....
1885	2,424,371	83,063	222,860	4,242	117,161	119,544	5,523	207,228	.....	.....
1886	2,500,783	109,615	139,830	2,446	122,270	115,696	4,168	164,111	.....	.....
1887	2,226,341	75,438	113,459	2,655	146,708	162,153	8,442	331,621	.....	.....
1888	2,006,259	63,983	96,210	1,891	135,171	148,179	8,919	371,441	.....	.....
1889	2,526,683	121,815	190,700	2,890	171,098	185,236	6,618	248,998	.....	.....
1890	2,085,811	104,515	209,653	4,062	174,190	180,357	13,081	573,561	.....	.....
1891	1,195,270	49,326	212,627	3,520	167,606	176,588	10,126	509,719	19,605	77,613
1892	2,776,737	119,837	281,430	4,386	169,435	211,223	13,648	726,648	136,864	504,897
1893	4,140,291	186,577	207,220	3,558	174,930	208,779	14,118	868,309	172,582	651,814
1894	4,596,469	222,067	283,483	3,282	155,378	171,915	7,935	410,819	189,820	702,024
1895	4,284,741	212,000	225,340	3,763	167,277	182,315	7,047	208,935	180,840	666,574
1896	5,212,297	229,911	201,566	3,293	200,365	222,188	11,720	384,504	183,139	628,734

	Potash, Bicarb.		Potash, Bich. & Chr.		Potash, Black Salt.		Potash, Crude & Carb		Potash, Caustic.	
	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.
1872	430,765	34,555	1,174,274	220,111	.....	.....	.....	.....	.....	.....
1873	465,073	38,506	1,121,357	178,472	13,459	.....	.....	.....	.....	.....
1874	440,330	36,923	1,387,051	218,517	9,996	.....	.....	.....	.....	.....
1875	531,465	38,990	1,417,812	183,424	12,748	.....	.....	.....	.....	.....
1876	329,149	20,643	1,665,011	175,795	635	.....	.....	.....	.....	.....
1877	397,700	25,057	2,471,669	264,392	.....	.....	.....	.....	.....	.....
1878	374,392	22,721	1,929,670	211,136	1,076	.....	.....	.....	.....	.....
1879	211,467	12,178	2,624,403	221,151	.....	.....	948,206	39,696	.....	.....
1880	405,941	22,317	3,505,741	350,279	3,036	564,807	22,557	.....	.....	.....
1881	798,585	39,214	4,404,237	402,088	1,227	537,009	25,451	.....	.....	.....
1882	1,036,470	55,045	2,449,875	281,066	5,723	957,124	50,580	.....	.....	.....
1883	1,571,012	93,817	1,990,140	208,681	1,192	982,843	54,216	.....	.....	.....
1884	126,160	7,025	2,593,115	210,677	25,252	1,836,653	85,029	785,018	44,174	
1885	45,895	2,004	1,448,539	92,556	45,752	2,895,476	104,617	1,000,140	48,431	
1886	29,426	1,543	1,985,808	139,117	16,468	4,731,039	170,668	1,296,062	62,221	
1887	21,734	533	1,772,465	120,305	8,503	4,744,276	163,603	1,237,857	56,184	
1888	49,206	2,769	1,755,480	143,312	Balance	5,132,122	178,881	1,111,497	48,206	
1889	61,606	3,081	2,025,108	175,603	under	4,444,115	133,833	1,113,308	45,541	
1890	90,188	4,691	1,166,001	95,234	potash,	6,529,685	218,604	1,450,336	57,900	
1891	76,828	4,344	1,234,085	95,951	carb. &	7,366,178	263,523	1,882,461	84,429	
1892	40,759	2,290	1,058,521	81,287	crude.	8,745,268	309,585	1,810,604	79,649	
1893	74,983	3,903	969,067	79,174	.....	10,115,017	329,895	2,338,868	99,177	
1894	2,716	168	1,009,499	83,420	.....	8,130,975	262,818	1,471,511	62,671	
1895	117,674	7,401	2,024,776	173,139	.....	11,602,272	364,506	3,015,361	123,798	
1896	71,350	3,457	1,444,716	129,339	.....	12,439,180	401,819	3,322,261	135,826	

	Potash, Chlorate.		Potash, Muriate.		Potash, Prus., Red.		Potash, Prus., Yellow.		Potash, Sulphate.	
	Pounds.	Dollars.	Pounds.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	609,821	167,065	5,821,551	126,418	326	203	83,005	11,266	.....	.....
1873	1,216,498	354,261	7,765,495	158,768	2,650	1,348	263,112	94,516	.....	.....
1874	804,346	188,148	7,444,280	134,289	21,515	14,622	151,037	46,679	.....	.....
1875	755,791	161,189	11,741,710	190,587	9,454	6,791	133,023	32,290	.....	.....
1876	474,598	104,549	9,884,722	157,542	9,534	5,042	55,439	13,647	.....	.....
1877	1,122,442	202,992	13,693,193	209,413	22,669	11,517	18,500	3,876	.....	.....
1878	768,758	128,227	19,655,204	292,603	12,287	5,640	56,000	11,874	.....	.....
1879	1,110,853	170,843	21,334,022	250,818	33,100	14,167	25,020	5,290	.....	.....
1880	1,305,133	180,660	24,024,554	331,489	47,990	21,394	112,617	22,483	.....	.....
1881	1,086,781	150,444	22,801,259	335,799	106,424	49,685	544,167	108,954	.....	.....
1882	1,219,279	164,906	43,475,660	743,825	71,678	26,000	326,020	64,891	.....	.....
1883	1,444,979	173,617	30,742,333	535,259	53,499	21,046	510,522	100,701	.....	.....
1884	1,169,790	126,272	48,712,767	731,409	64,219	24,044	346,092	66,870	346,343	6,227
1885	1,395,966	159,270	40,839,704	613,674	60,784	23,956	183,457	34,512	11,888	190
1886	1,827,199	230,478	46,824,006	721,736	57,100	19,005	338,967	51,581	651,883	10,850
1887	1,855,899	223,321	39,800,600	592,432	80,492	22,831	412,130	58,300	1,996,324	38,986
1888	2,054,497	239,162	56,065,179	822,089	56,054	16,695	500,232	68,414	1,447,749	27,038
1889	2,525,763	259,843	72,103,129	1,067,344	73,151	22,258	949,356	125,528	5,599,143	89,173
1890	2,442,775	224,509	62,940,705	928,457	45,554	12,648	849,070	112,639	1,489,716	26,599
1891	3,551,838	341,661	75,854,367	1,182,007	35,826	10,650	2,223,154	368,366	2,725,193	49,619
1892	3,453,492	354,311	70,421,448	1,094,122	35,933	11,111	1,302,632	233,058	6,335,469	112,780
1893	4,064,176	455,905	73,387,180	1,180,044	16,679	5,741	1,047,910	206,259	13,846,744	251,792
1894	4,131,055	520,571	81,664,184	1,280,795	11,135	3,339	599,103	114,826	11,977,264	229,975
1895	4,549,809	489,774	89,508,127	1,361,218	26,703	7,593	878,727	161,009	15,524,016	273,392
1896	5,196,575	452,058	86,876,708	1,372,743	30,390	8,579	1,056,562	157,457	14,847,333	269,809

	Pumice.	Quicksilver.		Quinine Salts All Others.		Quinine Sulphate.		Red Lead.	
	Dollars.	Pounds.	Dollars.	Ozs.	Dollars.	Ozs.	Dollars.	Pounds.	Dollars.
1872	12,796	370,353	189,945	...	....	34,723	32,645	1,513,794	85,645
1873	9,264	90,898	74,146	...	....	122,784	221,349	1,583,089	99,981
1874	22,899	51,202	52,093	...	....	68,097	125,510	756,644	56,306
1875	8,726	6,870	6,857	...	....	12,279	17,491	1,048,713	73,132
1876	9,122	....	....	...	....	22,746	31,117	749,918	54,884
1877	11,556	38,250	19,558	681	1,089	75,804	236,948	387,260	28,747
1878	12,343	294,207	135,178	256	435	17,549	50,858	170,608	9,364
1879	12,892	519,125	217,770	617	755	228,348	626,567	143,287	7,237
1880	15,520	116,700	48,463	406	720	416,998	1,111,254	217,033	10,398
1881	19,052	138,517	57,733	...	....	408,851	1,052,228	212,423	10,009
1882	29,370	597,898	233,057	392	1,388	794,495	1,554,350	288,946	12,207
1883	50,634	1,552,738	593,367	97	248	1,055,764	1,809,798	249,145	10,503
1884	26,667	....	....	712	1,038	1,263,732	1,610,163	265,693	10,589
1885	21,604	....	....	5,435	1,868	1,390,126	1,292,794	216,449	7,641
1886	30,070	....	....	131,747	15,599	1,251,556	887,599	466,853	17,239
1887	26,291	....	....	1,505	1,225	2,180,157	1,098,547	435,336	16,971
1888	33,367	....	....	6,226	2,763	1,603,936	647,654	887,828	18,204
1889	57,082	....	....	82,337	31,001	2,825,008	917,322	580,808	26,524
1890	55,411	....	....	53,115	13,980	2,990,239	886,430	430,063	20,568
1891	52,414	....	....	112,013	23,977	3,079,000	805,821	519,613	20,950
1892	52,065	....	510	156,442	29,366	2,686,677	542,440	812,943	29,504
1893	54,795	....	....	48,030	11,605	3,027,819	556,782	1,013,855	33,361
1894	43,788	....	755	40,850	10,991	2,141,120	470,816	534,422	18,623
1895	47,995	....	2,601	37,027	10,857	1,308,959	327,541	1,663,310	50,324
1896	59,894	....	2,343	76,507	23,147	2,950,078	754,050	1,708,477	52,199

	Rennets.		Rhubarb.		Rotten Stone.	Sago and Sago Flour.		Salicine.		Salt Cake.	
	Dollars.		Lbs.	Dollars.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	.....		87,387	51,036	.....	.....	.....	.....	.....	.....	.....
1873	4,870		74,648	28,090	3,494	2,339,380	100,998	....	....	.....	.....
1874	3,859		55,273	15,375	353	1,201,962	38,243	....	....	.....	.....
1875	11,288		53,324	20,063	1,900	2,107,833	57,893	....	....	.....	.....
1876	16,586		91,591	40,962	2,651	2,604,597	68,906	....	....	.....	.....
1877	12,016		70,496	31,905	675	2,224,824	57,883	....	....	.....	.....
1878	14,618		53,384	18,789	1,396	2,594,561	72,452	....	10,885	.....	.....
1879	36,899		69,652	25,808	3,330	2,199,916	73,791	....	15,500	.....	.....
1880	11,536		188,060	44,510	8,640	3,320,347	107,114	....	....	.....	.....
1881	34,261		163,510	42,607	3,848	1,247,219	38,845	....	....	.....	.....
1882	49,173		88,008	26,492	8,301	2,177,985	64,662	....	....	8,954,834	55,622
1883	33,266		94,091	31,190	6,749	1,916,135	46,671	....	....	7,863,756	43,363
1884	45,660		123,099	38,326	4,402	3,417,820	82,480	2,913	4,728	8,416,147	40,646
1885	72,282		112,126	28,778	2,190	2,062,531	37,715	4,695	7,871	11,614,534	52,324
1886	86,233		120,541	30,012	2,235	2,707,533	47,488	3,293	4,658	7,935,237	32,722
1887	56,011		137,034	23,071	5,556	2,780,406	51,331	1,846	5,820	15,366,588	43,766
1888	68,538		135

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TOTAL IMPORTS—(Continued.)

	Saltpeter, Crude.		Saltpeter, Refined.		Sandalwood.	Santonine.		Sarsaparilla.	
	Lbs.	Dollars.	Lbs.	Dollars.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	4,409,789	207,242	870,966	43,479	3,517	212	1,194	631,623	110,056
1873	10,682,038	498,932	522,456	31,045	266	638	2,956	955,696	139,540
1874	8,280,341	392,515	166,277	12,530	....	811	3,590	281,718	73,343
1875	9,457,954	380,286	222,113	16,988	799	101	474	479,961	123,103
1876	7,507,213	279,635	352,515	20,510	830	427	2,816	883,590	144,168
1877	10,322,255	382,191	549,039	29,562	1,384	63	731	500,636	99,286
1878	8,126,384	332,162	302,583	18,286	138	162	1,269	580,957	84,489
1879	8,294,987	342,392	351,401	19,161	56	189	1,158	453,002	54,495
1880	11,309,351	428,904	1,051,705	68,598	3,400	595	3,246	485,602	85,008
1881	11,014,226	414,631	322,936	19,536	773	483	2,317	270,820	63,641
1882	11,796,091	439,459	435,794	26,719	702	980	3,614	425,659	92,142
1883	10,534,081	382,589	199,468	11,372	10,529	1,508	4,353	644,207	106,658
1884	10,152,878	320,336	112,463	5,767	4,009	1,393	3,243	333,599	50,041
1885	11,753,940	341,222	119,207	4,525	655	685	1,378	635,937	103,013
1886	10,471,618	285,629	54,211	2,599	2,598	108	195	1,337,908	200,244
1887	10,522,118	298,070	218,473	9,723	1,334	68	117	919,695	119,313
1888	7,702,705	210,082	323,800	14,513	4,217	22	31	446,491	67,757
1889	9,250,233	255,085	154,648	6,802	4,488	7	9	535,358	52,101
1890	9,799,550	278,761	116,997	5,385	102	17	22	498,788	79,394
1891	16,090,486	494,122	155,920	4,739	4,500	5	7	631,985	90,694
1892	14,394,214	438,304	34,426	1,642	2,459	100	152	728,217	70,227
1893	16,569,403	466,003	129,246	6,061	9,450	230	352	1,000,379	107,352
1894	9,392,044	246,170	126,401	5,667	11,274	1,155	1,285	721,699	98,506
1895	8,735,340	245,556	31,000	1,085	1,489	....	....	1,261,841	121,965
1896	18,878,218	389,416	118,125	5,836	13,908	740	1,100	689,095	73,211

	Seed, Anis & Star.		Seed, Canary.		Seed, Caraway and Coriander.		Seed, Cardamom.		Seed, Mustard.	
	Lbs.	Dollars.	Bush.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	62,900	62,830	31,292	47,392	490,378	30,840	21,342	44,176	1,171,226	77,890
1873	324,686	31,842	79,140	119,076	550,805	31,264	39,668	53,956	2,304,712	130,431
1874	48,399	4,979	35,383	52,927	554,800	35,863	22,346	26,118	731,699	35,695
1875	90,557	7,800	49,218	130,351	881,104	52,931	36,779	38,549	1,582,641	77,200
1876	160,891	16,234	75,268	294,385	406,388	32,262	29,057	30,037	1,162,375	61,779
1877	93,485	8,196	131,428	267,219	732,714	49,081	29,540	23,416	2,178,494	131,069
1878	151,862	14,179	96,801	154,702	605,146	39,765	28,247	35,065	823,558	48,894
1879	145,088	13,802	67,362	105,771	765,314	46,627	33,908	54,541	1,867,315	87,849
1880	150,508	13,585	192,119	321,095	783,942	38,621	64,973	90,684	3,096,132	139,010
1881	367,186	29,386	50,627	86,838	1,801,800	49,542	42,456	66,079	1,557,832	63,240
1882	240,201	17,631	145,575	272,527	958,051	42,920	41,205	64,261	4,507,975	196,927
1883	190,100	11,946	69,581	121,070	861,986	41,504	22,720	31,556	1,579,569	76,509
1884	154,661	13,434	140,778	201,965	1,115,094	54,902	42,332	60,846	2,627,499	97,161
1885	202,628	12,813	128,782	193,548	1,056,923	59,100	34,795	39,439	2,227,779	86,365
1886	233,796	18,545	224,240	312,983	1,018,073	71,756	48,255	32,285	4,495,043	170,602
1887	333,761	27,996	119,441	187,716	1,192,074	62,608	43,706	23,857	2,077,443	68,781
1888	163,005	11,240	148,966	201,006	1,282,636	64,939	39,261	18,882	2,161,952	84,361
1889	218,256	13,776	179,102	197,385	1,536,547	62,312	21,569	10,788	2,756,341	94,413
1890	180,559	10,534	132,384	121,511	1,349,390	47,439	46,464	22,637	2,471,570	81,848
1891	300,880	19,348	128,551	122,670	1,606,501	53,808	41,399	21,945	2,878,660	92,052
1892	284,869	14,232	128,998	153,921	1,438,731	55,636	65,294	30,935	3,954,258	127,445
1893	259,438	18,246	93,195	213,882	1,154,295	51,969	31,315	15,362	2,982,085	99,990
1894	174,631	13,403	60,235	74,811	10,011,130	59,788	25,723	13,470	1,169,848	29,937
1895	214,950	13,059	160,805	185,303	1,265,492	70,721	42,587	17,833	1,616,050	46,200
1896	212,259	10,486	106,693	109,448	1,637,191	89,151	24,540	12,510	2,565,884	50,159

	Seed, Poppy.		Seed, Rape.		Senna.		Sienna, Dry.		Sienna, in Oil.	
	Bush.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	Included in		254,556	10,692	181,590	19,225	Incl. in Ocher.		Incl. in Ocher.	
1873	Rape to		247,740	11,532	243,862	18,978	"	"	"	"
1874	1890.		367,358	17,359	180,740	13,215	"	"	"	"
1875			541,014	23,521	114,765	9,222	"	"	"	"
1876			465,703	21,388	180,869	15,373	"	"	"	"
1877			723,288	32,548	224,433	20,070	"	"	"	"
1878			429,523	19,462	286,001	29,417	"	"	"	"
1879			569,392	22,244	243,418	18,754	"	"	"	"
1880			531,412	19,986	349,262	25,699	"	"	"	"
1881			581,594	22,741	512,124	34,947	"	"	"	"
1882			1,202,749	43,869	299,438	22,404	"	"	"	"
1883			1,107,716	42,379	396,979	35,459	"	"	"	"
1884			1,998,937	63,628	392,307	28,803	1,048,408	19,340	53	46
1885			1,672,343	50,402	282,376	19,947	682,509	11,606	....	....
1886			1,663,110	47,029	225,557	19,312	962,366	17,968	8,459	421
1887			1,111,839	37,040	503,142	56,999	934,482	20,271	6,346	670
1888			1,646,739	52,552	.....	47,447	1,190,092	21,965	2,228	216
1889			1,865,572	55,758	.....	44,104	1,442,525	30,390	1,329	290
1890			2,141,987	42,437	.....	43,145	1,225,527	24,069	17,685	1,639
1891	5,323	13,108	1,419,125	33,071	.....	51,876	1,129,231	22,523	18,057	1,547
1892	11,764	33,728	92,920,452	21,856	.....	55,611	1,213,091	23,761	10,384	777
1893	12,728	40,582	639,811	15,148	.....	67,570	1,297,870	29,538	24,223	1,719
1894	11,132	28,064	931,702	20,326	.....	39,083	949,348	24,883	4,028	469
1895	17,897	28,145	1,154,156	22,235	.....	51,058	297,756	7,772	33,667	1,764
1896	16,497	22,101	880,993	16,009	.....	68,622	625,273	12,681	11,534	554

	Shellac.		Soap, Castile.		Soap, Toilet.		Soap, All Others.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	Included under Co-		.....	.....	288,114	106,654	3,854,166	239,690
1873	pal, etc., to		1,190,839	74,904	253,112	87,926	3,037,659	187,103
1874	1884.		2,729,483	173,393	200,167	69,308	91,156	6,602
1875			126,564	7,786	248,181	79,154	3,748,617	210,093
1876			3,095,166	178,970	198,270	77,259	Included in Cast le.	
1877			3,791,688	219,089	197,817	75,766	"	"
1878			3,219,008	183,020	182,678	69,315	"	"
1879			3,783,503	230,043	161,639	62,251	"	"
1880			3,897,597	230,384	190,861	74,179	"	"
1881			2,830,678	175,439	177,014	77,312	"	"
1882			3,606,643	232,159	167,894	83,902	"	"
1883			3,119,074	201,093	195,355	103,025	"	"
1884	2,868,005	546,674	4,483,816	51,994	364,059	167,852	.....	32,748
1885	3,468,891	505,724	3,836,989	45,998	358,423	155,102	.....	19,494
1886	4,422,975	594,416	3,825,964	44,654	430,196	177,119	.....	35,484
1887	4,722,538	564,251	3,654,321	41,894	463,525	197,512	.....	28,539
1888	4,207,345	524,858	3,547,299	39,735	614,623	245,024	.....	37,348
1889	5,508,874	789,464	3,508,641	40,100	615,750	226,226	.....	23,906
1890	4,739,465	802,745	3,921,363	46,529	715,894	280,018	.....	34,236
1891	6,290,225	1,078,584	3,649,766	44,933	683,215	281,255	.....	45,560
1892	6,320,518	1,081,555	4,170,471	52,131	736,763	297,475	.....	38,301
1893	5,606,386	975,328	4,235,477	52,944	831,993	340,458	.....	64,473
1894	4,964,301	1,015,653	4,297,212	53,715	688,797	292,231	.....	29,354
1895	6,323,423	1,280,494	4,419,289	257,885	763,361	245,660	.....	48,301
1896	6,067,387	1,211,291	4,684,721	259,316	855,264	255,853	.....	306,684

	Soda, Ash.		Soda, Bicarb.		Soda, Bichromate.		Soda, Caustic.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	143,1[illegible]08	2,819,481	15,530,188	374,231	.....	.....	29,992,539	1,037,329
1873	188,443,202	4,778,678	10,571,449	369,867	.....	.....	28,871,629	1,269,142
1874	149,230,189	3,670,573	11,873,182	435,455	.....	.....	34,282,189	1,516,133
1875	171,008,890	3,534,647	6,853,588	231,755	.....	.....	37,669,885	1,419,292
1876	165,502,897	2,967,372	4,482,911	125,587	.....	.....	32,093,691	1,107,200
1877	200,631,499	3,285,966	3,765,165	98,277	.....	.....	33,375,447	1,043,933
1878	208,425,700	3,128,772	3,693,494	92,917	.....	.....	33,178,762	1,015,554
1879	227,893,121	3,036,479	2,392,719	60,701	.....	.....	45,767,366	1,209,469
1880	289,511,967	4,292,632	2,211,113	53,270	.....	.....	43,693,333	1,056,497
1881	295,227,766	4,154,258	1,951,851	58,312	.....	.....	49,465,385	1,168,277
1882	267,250,809	3,339,961	1,627,086	52,361	.....	.....	56,878,896	1,282,412
1883	323,726,726	4,006,638	2,298,914	55,081	.....	.....	52,172,490	1,134,265
1884	287,401,005	3,510,411	2,154,922	49,377	.....	.....	79,002,327	1,800,423
1885	260,932,988	3,065,989	2,516,951	50,535	428,841	21,123	71,606,399	1,551,209
1886	279,931,929	3,229,030	3,220,927	54,511	827,347	40,705	77,843,401	1,558,761
1887	263,274,392	2,857,930	2,478,669	45,801	758,860	38,678	83,849,903	1,608,490
1888	267,896,710	2,681,793	1,909,049	27,311	637,235	43,215	87,729,747	1,534,624
1889	286,103,275	2,762,865	1,237,096	19,663	607,397	44,574	76,691,819	1,270,670
1890	229,441,652	3,243,001	838,077	14,686	1,020,854	65,816	79,481,973	1,444,938
1891	326,099,238	4,122,700	758,613	15,610	545,458	31,565	76,788,411	1,821,127
1892	320,880,894	4,282,416	2,170,606	37,822	703,246	44,091	62,423,060	1,534,914
1893	388,841,970	4,860,788	1,193,380	19,736	671,503	44,183	55,581,899	1,299,023
1894	252,573,836	2,490,898	984,176	17,664	267,397	17,657	37,187,716	813,348
1895	303,234,949	2,366,050	132,983	2,254	600,600	40,321	55,127,686	1,005,968
1896	254,063,927	1,970,975	7,558,139	103,642	556,631	38,103	60,272,061	1,035,529

TOTAL IMPORTS—(Continued.)

	Soda, Chlorate.		Soda, Sal.		Soda Nitrate.		Soda Silicate.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	....	....	21,587,244	299,844	35,817,597	934,118	919,934	14,003
1873	....	....	27,237,478	482,340	59,757,241	1,469,243	302,204	5,047
1874	....	....	31,126,647	477,983	61,978,316	1,338,141	125,870	2,175
1875	....	....	27,666,534	379,857	52,105,826	968,855	116,219	2,047
1876	....	....	20,074,269	249,691	51,887,218	1,055,357	164,441	2,473
1877	....	....	18,648,665	187,351	54,246,531	1,324,209	262,184	3,314
1878	....	....	19,520,840	178,218	42,258,855	973,223	332,859	4,597
1879	....	....	17,706,535	139,235	76,285,858	1,348,580	49,906	5,703
1880	....	....	23,814,230	178,963	68,043,426	1,833,396	1,021,571	14,855
1881	....	....	15,965,044	119,793	94,341,161	2,356,167	1,557,251	8,367
1882	....	....	29,842,140	242,978	184,598,857	3,911,610	106,101	1,444
1883	....	....	22,199,712	162,481	127,892,324	2,336,681	216,137	2,207
1884	....	....	25,323,589	212,031	121,202,296	1,983,378	257,200	2,360
1885	....	....	26,039,782	203,179	109,361,808	1,606,056	447,988	3,990
1886	....	....	30,687,608	197,240	101,216,225	1,681,824	133,365	1,428
1887	....	....	25,681,496	164,567	172,291,911	2,614,162	475,039	6,002
1888	....	....	25,048,475	154,114	178,954,024	2,449,640	405,951	4,496
1889	....	....	23,703,947	147,257	151,149,985	2,275,093	519,148	6,143
1890	....	....	34,080,409	257,447	204,763,849	2,709,151	609,257	7,422
1891	385,972	51,502	28,548,379	252,051	219,725,113	2,929,760	535,030	6,649
1892	472,570	63,736	22,509,306	226,522	235,964,893	2,976,819	571,153	7,090
1893	656,597	92,303	27,777,488	238,923	209,297,872	3,063,012	608,228	6,991
1894	411,951	63,367	17,743,813	126,756	197,438,080	2,785,073	485,435	5,054
1895	748,137	99,359	29,088,079	165,699	255,794,640	4,124,711	492,207	4,562
1896	890,408	107,880	18,434,024	86,644	290,913,280	3,870,734	580,310	5,277

	Sodium.	Soda, Sulphate.		Sponges.		Starch, Corn or potato.		Starch, Rice & Others.		Storax.	
	Dollars.	Lbs.	Dol.	Dollars.		Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dol.
1872	....	7,070	276	153,443		5,462	496	4,965	356	....	....
1873	....	62,182	2,483	189,985		4,148	293	2,918	253	....	....
1874	....	169,046	3,056	121,798		693,546	24,710	12,315	1,029	....	....
1875	....	71,593	2,256	110,440		636,029	22,180	5,953	485	....	....
1876	....	11,718	420	87,621		280,285	9,981	8,288	600	....	....
1877	....	285	14	88,798		333,356	11,761	793,204	25,441	....	....
1878	....	395	31	90,126		109,582	5,395	1,310,984	41,515	....	....
1879	....	7,357	130	130,515		1,572,459	55,586	1,160,479	36,026	....	....
1880	....	6,198	89	183,690		28,957	1,129	1,227,703	39,573	....	....
1881	....	775	15	229,292		35,896	2,124	1,108,319	33,354	....	....
1882	....	384,392	2,425	293,621		1,542,603	43,659	1,377,974	38,778	....	....
1883	....	26,341	367	270,462		2,673,430	74,640	1,094,116	30,329	....	....
1884	62	728,957	4,803	241,874		1,629,221	41,166	918,758	24,898	5,125	1,223
1885	4	11,314	220	235,519		614,897	14,370	8,298	315	8,244	1,649
1886	15	961,781	5,970	296,963		414,121	8,851	14,994	773	2,298	533
1887	356	613,132	2,601	302,510		311,556	6,597	390,623	7,677	1,488	182
1888	392	378,596	2,611	268,651		7,659,945	156,317	20,640	688	2,254	312
1889	690	208,815	1,427	277,373		1,405,065	30,700	20,560	736	2,026	253
1890	217	410,916	1,938	352,885		1,196,705	33,827	5,418	140	10,405	1,276
1891	68	214,775	2,167	381,879		3,743,219	86,694	5,708	242	3,432	583
1892	22,230	187,398	2,088	331,241		1,990,975	51,806	From 1892 on in-		3,123	409
1893	22,307	489,798	4,012	365,248		3,765,596	89,250	cluded in "Starch,		2,745	346
1894	45,825	924,874	4,916	217,456		2,561,790	55,763	Corn or Potato."		4,887	649
1895	40,640	.....	4,026	26,194		4,518,240	88,368			4,253	534
1896	85,298	1,910,486	9,770	320,767		3,654,425	65,008			10,927	1,375

	Sulphur, Crude.		Sulphur, Flowers.		Sumac.		Sumac Extract.	
	Tons.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.
1872	25,379	764,798	80,450	1,822	10,028,912	383,570	.....	.....
1873	45,532	1,301,000	123,851	2,924	13,160,114	463,780	.....	.....
1874	40,989	1,200,491	114,418	2,694	16,718,678	511,941	.....	.....
1875	39,683	1,259,472	89 929	1,891	16,542,548	533,713	.....	.....
1876	46,435	1,475,250	92,000	2,114	17,642,960	624,169	.....	.....
1877	46,418	1,242,888	260,612	5,873	21,430,641	736,390	.....	.....
1878	48,102	1,179,769	355,548	7,628	15,068,581	508,247	.....	948
1879	70,370	1,575,533	308,219	6,508	12,981,675	394,631	.....	.....
1880	87,537	2,024,121	277,088	5,516	21,895,670	588,911	.....	.....
1881	105,097	2,713,485	218,736	4,226	13,667,892	409,400	.....	.....
1882	97,504	2,627,402	355,936	6,926	17,487,644	461,441	.....	.....
1883	94,540	2,228,946	177,296	3,262	18,896,419	459,759	.....	.....
1884	105,112	2,242,697	398,720	7,869	16,785,257	609,630	1,436,024	58,810
1885	96,839	1,941,943	271,040	5,351	13,750,680	446,778	1,203,264	57,511
1886	117,538	2,237,089	477,120	8,739	16,656,606	494,361	1,602,165	70,311
1887	96,882	1,688,300	624,960	9,980	15,896,875	382,704	2,155,122	83,674
1888	98,252	1,581,583	286,720	4,202	13,735,984	270,209	2,600,324	92,678
1889	130,197	2,025,785	486,960	6,289	12,115,299	218,762	2,189,498	73,810
1890	142,951	2,136,658	305,440	5,139	16,397,213	302,275	2,409,274	74,409
1891	119,891	2,465,733	627,040	8,386	11,412,297	235,729	2,390,028	77,152
1892	109,647	2,524,480	234,250	3,883	10,822,614	225,891	1,962,089	68,853
1893	119,625	2,305,571	248,960	4,493	14,363,922	289,953	2,880,210	104,447
1894	89,169	1,321,792	230,240	4,066	8,315,551	191,303	1,277,609	54,535
1895	126,315	1,685,563	1,106,800	11,527	11,242,216	236,541	1,604,024	53,260
1896	146,116	1,863,330	1,223,040	10,621	13,349,233	231,324	2,472,923	78,504

	Talc.		Tallow.		Tapioca.		Terra Alba.		Tonca Beans.
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Dollars.
1872	.....	85	647,012	49,623	736,223	31,838	.....	6,444	13,714
1873	.....	8,295	101,105	8,156	1,550,869	64,894	.....	2,295	25 1 9
1874	.....	10,636	20,776	1,270	1,600,300	61,078	.....	56,821	54,173
1875	.....	5,580	49,537	4,414	2,355,611	93,785	.....	43,726	17,841
1876	.....	9,737	9,482	691	1,587,460	56,242	.....	20,876	18,035
1877	.....	9,838	25,522	2,370	1,556,150	56,179	.....	344	99,351
1878	.....	14,684	1,938	34,557	2,425,585	111,310	.....	683	31,442
1879	.....	16,927	27,728	24,026	2,792,601	136,439	.....	7,081	37,040
1880	.....	23,217	65,074	43,718	1,620,931	176,023	.....	34,718	159,386
1881	.....	18,745	55,519	4,541	4,857,434	187,983	.....	30,186	
1882	.....	20,958	163,732	7,992	5,646,758	201,003	283,946	1,572	108,030
1883	.....	17,224	108,758	6,028	7,344,846	214,437	149,782	800	215,711
1884	.....	34,864	71,874	5,164	4,603,356	115,870	10,666,496	25,188	201,037
1885	.....	23,702	20,310	1,330	5,555,497	137,175	20,310,540	41,378	109,285
1886	.....	25,051	16,844	888	7,519,874	218,418	12,358,836	25,078	131,084
1887	.....	40,848	22,494	856	4,885,868	159,949	15,378,437	39,431	149,113
1888	35,556	44,169	43,223	1,893	4,418,506	180,455	12,613,500	24,951	17,172
1889	14,875	6,213	242,498	11,425	5,045,314	205,814	20,311,533	40,813	37,915
1890	20,273	32,553	44,762	1,984	7,084,796	232,860	33,831,892	70,922	92,588
1891	.....	.....	77,557	3,278	8,147,585	243,885	20,762,212	50,128	312,537
1892	537,041	3,285	25,966	2,885	7,199,703	179,361	14,626,816	53,934	88,571
1893	2,068,191	9,597	48,300	5,067	9,277,825	213,430	17,077,616	53,392	272,601
1894	1,711,847	8,455	57,540	6,515	6,336,182	131,237	3,547,327	10,585	35,316
1895	2,523,340	12,557	8,594,587	443,951	13,283,512	234,199	9,129,263	23,392	312,031
1896	6,925,159	28,276	8,262,597	349,854	9,740,567	161,509	7,960,342	21,331	502,172

	Turpentine, Venice.		Ultramarine.		Umber, Dry.		Umber in Oil.	
	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.
1872	....	183	670,839	86,997	1,409,822	18,203	Included in Dry	
1873	23,429	3,599	1,037,949	138,008	845,691	8,414	to 1884.	
1874	49,862	7,991	1,257,637	165,634	729,864	6,200		
1875	49,108	9,078	1,468,487	203,773	513,811	5,596		
1876	10,381	1,601	1,394,697	191,606	681,199	7,527		
1877	19,488	2,744	1,559,027	203,762	1,101,422	10,213		
1878	59,365	8,568	1,279,297	162,486	1,038,880	8,302		
1879	42,403	6,280	1,020,003	131,762	986,105	6,959		
1880	40,259	5,796	1,214,770	162,653	1,877,645	17,271		
1881	56,732	8,104	913,935	127,352	1,475,835	11,126		
1882	47,109	6,190	906,685	122,988	1,923,648	20,494		
1883	45,838	6,468	819,025	105,654	785,794	8,419		
1884	45,817	6,131	1,015,875	114,228	2,946,675	20,654	4,779	127
1885	43,850	6,323	999,128	97,487	1,198,060	8,504	6,822	402
1886	55,192	8,220	1,060,547	98,613	1,094,593	8,656	200	12
1887	67,572	10,100	647,382	62,535	1,521,114	12,033	16,769	1,090
1888	57,180	7,310	559,420	51,017	2,378,568	11,727	31,552	4,105
1889	44,144	6,292	628,953	55,508	976,838	13,545	19,615	4,803
1890	67,097	8,154	788,102	69,343	1,645,615	11,952	7,906	7,083
1891	70,185	8,138	612,734	62,833	158,762	14,556	6,098	2,594
1892	36,642	3,992	627,581	61,321	1,387,660	12,550	4,183	592
1893	20,694	2,365	929,313	90,617	1,399,075	15,494	16,666	969
1894	51,267	5,619	646,170	69,334	854,853	9,404	14,356	463
1895	50,285	4,257	818,830	94,070	12,370	131	15,906	552
1896	30,473	2,941	497,602	55,226	1,095,070	9,759	4,590	293

WING & EVANS

COMMISSION MERCHANTS

22 WILLIAM ST., NEW YORK

Soda Ash,

Sal Soda,

Caustic Soda,

Bleaching Powder

AGENTS FOR

BRUNNER, MOND & CO. Ltd., - Northwich, Eng.

SOLVAY PROCESS CO., Syracuse, N. Y.

TOTAL IMPORTS—(Continued.)

	Uranium Oxide.	Vanilla Beans.		Varnish, Spirit.		Varnish, Other.	
	Dollars.	Pounds.	Dollars.	Gallons.	Dollars.	Gallons.	Dollars.
1872	....	13,617	107,258	Included in Varnish.		29,626	86,932
1873	....	35,574	369,362	"	"	23,403	70,313
1874	....	12,116	174,728	"	"	23,545	73,613
1875	....	36,270	419,570	"	"	29,677	86,442
1876	....	36,539	280,328	"	"	23,328	72,821
1877	....	16,570	137,650	"	"	20,854	64,839
1878	116	29,859	202,556	"	"	16,185	49,354
1879	....	41,891	295,262	"	"	26,373	74,500
1880	....	53,995	413,839	"	"	68,616	120,189
1881	....	37,214	206,030	"	"	86,814	140,552
1882	1,144	98,542	623,042	"	"	52,054	112,781
1883	664	71,157	336,467	"	"	266,459	436,212
1884	5,468	75,634	357,891	5,604	13,623	30,328	75,659
1885	26,815	97,095	412,673	1,702	4,858	24,580	68,384
1886	80,537	103,771	431,155	3,418	6,813	33,046	95,232
1887	37,052	137,709	775,878	2,596	6,196	24,634	76,184
1888	445	143,472	842,201	2 690	7,443	25,398	77,958
1889	1,607	168,536	700,160	2,454	7,261	30,881	87,075
1890	2,251	144,870	559,867	2,182	5,056	30,791	88,250
1891	1,974	171,024	594,949	2,462	6,456	31,424	91,120
1892	3,626	242,465	803,716	2,350	5,677	36,531	94,138
1893	2,879	249,247	767,646	1,301	4,967	39,531	105,815
1894	3,251	171,555	727,753	741	2,957	19,642	53,343
1895	2,428	137,695	495,273	1,553	4,063	79,685	103,676
1896	5,021	237,256	1,013,600	2,327	5,879	38,302	100,936

	Verdigris.		Vermillion.		Wash Blue.		White Lead.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	221,936	41,627	120,067	49,237	Included in Ultramarine.		7,153,978	431,477
1873	123,789	27,154	87,008	65,796			6,331,373	408,986
1874	105,500	21,465	42,324	39,443	.....	.....	4,771,500	323,926
1875	190,566	44,612	9,460	10,831	.....	.....	4,354,131	295,642
1876	95,250	23,144	18,981	17,679	.....	.....	2,546,766	175,777
1877	181,492	42,666	23,315	14,660	.....	.....	2,644,184	174,844
1878	209,223	47,010	9,843	5,772	.....	.....	1,759,608	113,638
1879	142,170	30,493	11,382	6,105	.....	.....	1,274,196	76,061
1880	305,792	68,438	11,952	5,907	.....	.....	1,906,931	107,105
1881	160,745	35,163	14,243	7,392	.....	.....	1,068,031	60,133
1882	250,267	52,212	12,496	6,215	.....	.....	1,161,890	64,494
1883	239,992	47,849	19,549	8,796	.....	.....	1,044,479	58,589
1884	247,636	44,862	.....	10,473	.....	.....	902,282	67,919

TOTAL IMPORTS—(Continued.)

	Verdigris.		Vermillion.		Wash Blue.		White Lead.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1885	149,071	25,012	.....	8,244	.....	.....	705,536	40,437
1886	95,578	14,176	.....	10,767	.....	.....	755,193	54,243
1887	191,033	26,520	.....	10,141	.....	.....	747,933	55,334
1888	155,349	21,213	.....	17,778	.....	.....	721,369	54,701
1889	117,678	17,204	.....	4,001	.....	.....	668,856	54,755
1890	137,689	20,138	.....	5,186	.....	.....	749,064	59,359
1891	212,019	32,016	.....	18,632	166,327	23,407	628,414	43,041
1892	87,493	11,338	52,037	25,507	310,828	47,102	733,379	40,492
1893	87,125	10,741	66,752	29,926	281,455	41,538	815,526	41,319
1894	83,776	10,098	26,277	10,393	233,519	33,430	613,422	31,143
1895	132,483	15,576	41,222	16,855	243,304	35,758	1,425,135	63,306
1896	73,886	8,590	55,087	20,064	359,166	51,374	1,628,087	69,459

	—Whiting and Paris White, Dry.—		—Zinc Oxide in Oil.—		—Zinc Oxide, Dry.—		—Cassia.—	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1896	786,049	2,840	224,523	11,387	4,580,057	146,460	4,809,538	237,706
1872	6,392,717	31,464	Incl. in Zinc Oxide, Dry.		3,660,091	193,448	1,737,545	287,164
1873	6,197,117	32,622			3,530,465	233,421	1,905,147	338,620
1874	3,749,122	24,734	"	"	1,974,469	136,282	2,286,216	366,984
1875	4,107,569	22,492	"	"	2,800,998	181,455	1,665,636	279,250
1876	2,605,332	13,270	"	"	2,460,144	161,944	1,629,795	182,001
1877	2,390,333	11,269	"	"	2,068,729	130,719	1,088,266	132,749
1878	1,871,374	7,903	"	"	2,451,060	140,157	1,134,709	138,552
1879	1,365,867	5,976	"	"	2,274,935	117,886	1,703,710	189,917
1880	1,803,577	7,503	"	"	2,288,604	123,113	2,431,033	250,437
1881	1,974,913	7,806	"	"	2,044,778	106,990	1,987,052	207,106
1882	1,722,711	6,675	"	"	2,538,090	125,599	1,512,668	172,020
1883	2,216,018	8,396	"	"	1,877,804	93,983	1,664,647	139,958
1884	3,910,829	15,189	116,135	6,856	3,143,784	141,961	5,819,976	315,290
1885	1,401,783	6,157	98,566	5,479	2,233,128	90,926	2,666,946	167,278
1886	899,038	5,029	106,042	5,589	2,670,019	104,752	1,851,100	115,659
1887	1,248,142	4,657	[illegible]	[illegible]	2,763,642	106,736	4,342,755	226,934
1888	350,150	1,012	95,137	4,732	3,141,502	120,919	4,805,849	216,856
1889	630,795	2,461	64,478	3,447	2,838,155	119,180	2,124,417	173,072
1890	1,540,364	5,263	62,281	3,634	2,835,063	131,000	2,007,806	77,079
1891	1,042,518	4,228	139,371	7,226	2,629,858	136,366	3,611,621	137,591
1892	143,445	855	89,238	5,416	2,779,477	135,277	5,709,536	231,217
1893	281,618	988	337,941	14,612	3,641,934	144,817	4,615,450	201,195
1894	311,255	1,122	113,540	5,501	2,850,771	106,316	2,680,242	171,931
1895	335,758	1,162	123,205	5,775	3,892,738	128,039	4,291,688	216,554

EXPORTS FROM THE UNITED STATES BY COUNTRIES.

For the Fiscal Year ended June 30th, 1872 to 1896, inclusive.

Exports of Cottonseed Oil.

	Austria.		Belgium.		France.		Germany.	
	Gallons.	Dollars.	Gallons.	Dollars.	Gallons.	Dollars.	Gallons.	Dollars.
1872	.....	.....	.....	.....	35,143	18,042	19,347	10,458
1873	.....	.....	456	241	436	238	975	487
1874	119,456	61,204	.....	.....	15,381	7,024	.....	.....
1875	.....	.....	.....	.....	.....	.....	.....	.....
1876	.....	.....	227	130	.....	.....	.....	.....
1877	138,608	67,700	.....	.....	17,715	8,771	.....	.....
1878	983,462	527,705	.....	.....	1,227,673	609,195	92	48
1879	766,640	318,241	.....	.....	1,259,878	538,251	1,094	451
1880	1,147,752	519,380	4,600	2,500	1,430,231	656,848	48	22
1881	421,116	183,105	2,200	1,010	359,584	154,813	18,095	8,594
1882	145,531	59,850	.....	.....	59,106	29,619	18,707	9,100
1883	.....	.....	50	25	94,000	46,000	35,126	23,497
1884	704,762	296,582	.....	.....	722,175	328,599	96,698	45,161
1885	844,782	329,890	8,822	4,160	1,918,711	758,382	78,996	34,826
1886	1,319,957	458,253	142,747	61,930	1,488,031	468,833	144,636	50,311
1887	336,059	119,406	164,291	41,658	604,001	252,981	124,894	45,870
1888	49	20	368,490	146,580	1,022,140	445,609	143,258	61,454
1889	.....	.....	87,617	44,928	166,608	81,105	322,399	161,291
1890	1,391,679	511,651	899,828	157,654	2,049,288	837,515	653,391	263,784
1891	1,349,235	485,106	232,235	79,128	2,924,421	1,085,709	415,614	168,075
1892	1,663,889	572,767	274,597	96,686	2,278,398	816,869	1,067,555	403,769
1893	276,850	110,740	46,238	16,694	1,205,108	450,036	1,075,945	537,587
1894	370,612	144,530	24,840	10,278	1,275,132	527,035	2,199,434	907,924
1895	1,433,192	503,982	241,050	74,531	2,463,994	771,317	2,674,263	931,560
1896	1,451,280	425,095	485,198	124,408	4,848,810	1,356,858	946,691	271,152

EXPORTS OF COTTONSEED OIL.—(Continued.)

	Gibraltar.		Italy.		Netherlands.		United Kingdom.	
	Gallons.	Dollars.	Gallons.	Dollars.	Gallons.	Dollars.	Gallons.	Dollars.
1872	.....	.....	900	400	.....	.....	191,768	105,101
1873	600	325	18,298	9,338	31,680	15,732	652,782	341,409
1874	.....	.....	293,645	139,100	1,385	850	350,352	163,235
1875	.....	.....	169,147	84,847	.....	.....	245,154	130,453
1876	542	358	136,112	69,025	.....	.....	118,491	63,230
1877	121,939	55,497	872,949	438,028	47	28	290,609	145,783
1878	1,113,280	546,611	1,576,890	778,042	71	36	75,486	40,267
1879	173,329	68,893	2,346,107	969,015	99,396	44,467	557,785	230,117
1880	889,402	413,607	3,000,912	1,441,447	55,793	30,151	264,083	109,084
1881	1,509,214	657,573	753,609	312,569	23,300	9,896	134,556	54,206
1882	117,225	57,000	101,830	46,672	400	200	163,485	73,536
1883	92,041	43,000	.....	.....	700	520	33,480	18,901
1884	654,466	279,718	1,071,916	490,329	.....	.....	42,996	17,627
1885	1,353,814	567,538	1,370,621	574,958	14,952	5,994	578,854	253,764
1886	498,730	185,205	809,847	296,052	169,709	60,664	1,469,567	460,005
1887	484,500	185,000	341,456	117,994	1,463,088	595,505	282,619	107,747
1888	286,244	123,690	284,950	104,109	1,707,801	803,829	250,517	109,178
1889	.....	.....	65,250	28,090	1,739,341	824,639	48,056	23,465
1890	392,260	158,656	2,197,311	832,373	4,454,896	1,791,456	1,251,408	485,685
1891	600,000	250,060	1,150,163	411,439	1,641,312	571,740	1,692,191	571,512
1892	182,350	72,940	1,004,200	341,475	5,243,960	1,982,832	841,569	258,056
1893	.....	.....	462,244	166,490	3,736,155	1,588,975	780,182	320,420
1894	.....	.....	440,033	144,246	6,573,468	2,638,652	1,268,793	492,899
1895	181,288	48,950	853,016	288,378	6,189,740	2,182,761	3,489,372	926,685
1896	461,919	102,933	707,250	226,647	4,308,610	1,311,540	2,411,459	631,172

Exports of Dyestuffs.

	Belgium.	Denmark.	France.	Germany.	Italy.	Netherlands.	Portugal.	Spain.	United King'm.
	Dollars	Dollars.	Dollars.	Dollars.	Dollars	Dollars.	Dollars.	Dollars.	Dollars
1872	37,940	2,456	20,959	524,327	50,633	28,882	4,717	754	120,723
1873	18,702	....	6,053	429,297	45,407	29,785	3,120	3,030	92,229
1894	8,207	....	3,250	277,683	7,736	37,153	1,663	2,847	60,748
1875	4,183	....	1,506	297,362	6,800	30,980	4,263	490	114,646
1876	2,780	....	4,100	527,789	11,799	48,039	8,945	1,409	224,231
1877	11,860	....	13,364	336,958	21,751	29,995	3,811	....	163,173
1878	5,860	....	3,976	356,346	896	460	814	450	125,400
1879	19,868	....	8,089	426,159	7,990	1,360	25	300	170,375
1880	16,628	....	17,401	407,654	11,085	9,176	....	990	194,204
1881	23,747	....	1,929	341,318	5,781	27,275	1,320	714	198,696
1882	58,771	4,354	2,175	361,254	4,730	41,730	2,100	15	395,550
1883	42,444	2,555	8,680	308,181	18,655	54,045	195	....	358,536
1884	10,173	237	5,875	294,089	3,155	44,602	....	462	260,509
1885	25,353	1,531	4,268	250,789	1,504	48,760	490	....	289,743
1886	25,852	....	1,335	294,893	6,024	50,338	530	....	207,519
1887	59,011	33	3,043	329,865	10,007	54,202	510	500	269,043
1888	124,101	5,514	16,108	368,657	22,357	55,327	1,292	11,126	306,358
1889	54,876	11,148	11,839	315,941	23,945	26,800	728	9,247	242,957
1890	62,746	2,940	24,492	255,017	30,898	43,483	200	13,512	220,305
1891	62,176	2,445	8,169	242,410	27,491	42,966	....	13,846	200,785
1892	48,726	1,591	10,717	273,456	28,478	41,722	26	8,606	141,047
1893	40,258	2,646	11,480	279,187	26,367	32,342	160	8,560	112,306
1894	56,661	6,028	8,853	294,326	12,904	39,675	....	5,853	146,858
1895	65,135	5,580	9,873	206,860	17,087	28,488	....	2,315	95,865
1896	87,606	3,098	7,161	206,250	19,580	24,796	20	1,937	115,195

Exports of Fertilizers.

	Austria.		Belgium.		Denmark.		France.	
	Tons.	Dollars.	Tons.	Dollars.	Tons.	Dollars.	Tons.	Dollars.
1872	....	....	....	....	....	....	....	....
1873	....	....	....	....	....	....	....	1,385
1874	....	....	....	970	....	26,600	....	4,600
1875	....	....	....	1,500	....	7,535	....	8,560
1876	....	....	....	1,706	....	29,120	....	19,789
1877	....	....	....	....	....	32,507	....	22,782
1878	....	....	....	5,139	....	4,207	....	14,945
1879	....	....	....	1,120	....	18,025	....	23,544
1880	....	....	....	5,200	....	13,836	....	3,939
1881	....	....	....	....	....	17,150	....	7,420
1882	....	....	....	....	....	19,155	....	3,252
1883	....	....	....	1,890	....	24,215	....	8,070
1884	....	....	....	....	5,869	29,865	1,435	9,280
1885	....	....	70	490	4,140	24,840	1,086	7,207
1886	....	....	21	1,150	....	....	640	3,688
1887	....	....	290	1,940	1,950	11,700	1,360	8,985
1888	....	....	....	....	4,381	26,286	220	2,355
1889	....	....	....	....	2,251	13,506	....	....
1890	....	....	....	....	5,152	32,532	....	....
1891	....	....	76	2,322	1,174	23,480	3,473	32,442
1892	....	....	51	2,060	7,431	93,636	4,288	65,192
1893	1,375	11,000	150	3,000	3,276	44,010	34,287	223,926
1894	6,575	65,750	2,787	29,720	14,185	111,195	29,451	251,685
1895	4,200	42,179	4,670	42,792	11,506	104,109	49,279	419,561
1896	2,880	17,280	16,321	139,204	4,697	46,970	31,616	199,066

EXPORTS OF FERTILIZERS.—(Continued.)

	Germany.		Italy.	Neth'lands.	Swed. & Nor.		United King.	
	Tons.	Dollars.	Dollars.	Dollars.	Tons.	Dollars.	Tons.	Dollars.
1872	....	6,497	....	....	....	....	....	379,818
1873	....	252	....	....	....	....	....	154,175
1874	....	800	....	1,000	....	....	....	197,031
1875	....	1,966	....	600	....	....	....	523,374
1876	....	3,280	....	3,296	....	....	....	800,884
1877	....	32,303	85	5,040	....	....	....	852,211
1878	....	131,567	100	3,780	....	490	....	953,322
1879	....	132,430	13,275	9,491	....	4,170	....	920,347
1880	....	164,343	5,000	900	....	360	....	345,290
1881	....	36,909	1,200	950	....	350	....	420,998
1882	....	98,235	....	20,756	....	875	....	693,608
1883	....	136,020	....	3,356	....	1,278	....	725,012
1884	12,934	126,860	....	760	784	4,170	134,256	807,180
1885	10,330	82,458	....	350	1,840	11,379	115,204	711,192
1886	10,387	68,199	60	12,140	3,235	19,660	153,553	938,452
1887	25,676	166,808	123	9,750	2,050	12,350	182,456	1,086,810
1888	22,716	141,461	11,200	30,495	4,638	25,928	145,229	844,324
1889	17,915	109,784	13,383	30	1,710	10,260	96,440	575,398
1890	35,054	228,126	12,306	12,750	6,982	43,924	168,968	1,070,872
1891	34,916	360,784	29,944	980	10,382	127,725	167,420	1,318,116
1892	60,249	738,424	35,055	91,125	9,264	75,686	148,855	1,248,889
1893	149,600	1,493,455	57,579	212,240	17,435	146,466	210,065	1,421,484
1894	189,211	1,842,522	178,472	420,432	19,166	191,148	198,177	1,481,810
1895	220,268	2,165,121	165,416	587,710	16,547	151,308	222,527	1,477,824
1896	178,582	1,609,045	303,704	380,470	20,562	157,102	160,108	1,072,650

Exports of Starch.

	Belgium.		Germany.		Netherlands.		United Kingdom.	
	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.	Lbs.	Dollars.
1872	.....	.....	660,715	39,182	.....	.....	153,719	9,571
1873	.....	.....	2,529,736	135,039	210	25	613,535	26,838
1874	164,862	10,760	5,035,649	280,153	70	8	417,874	21,832
1875	321,028	26,362	3,308,049	180,232	166,743	8,631	433,376	32,463
1876	543,614	29,885	3,332,510	176,639	660,990	34,236	607,217	47,111
1877	312,239	19,856	3,407,582	163,679	1,991,347	84,295	984,181	60,202
1878	308,337	14,449	4,494,948	206,810	3,446,814	138,927	1,124,621	74,597
1879	840,115	39,070	3,546,214	152,761	3,613,645	139,990	2,974,377	133,953
1880	908,533	36,808	2,668,649	118,650	1,720,551	64,881	1,995,676	98,035
1881	1,204,261	57,955	2,603,091	127,436	4,614,183	210,172	1,383,281	71,350
1882	353,743	17,851	1,395,410	62,577	1,151,524	49,428	1,062,400	62,733
1883	390,[illegible]	18,322	674,723	28,778	2,086,694	82,137	816,643	50,524
1884	309,680	13,384	571,688	26,727	2,133,937	85,967	837,720	42,618
1885	314,244	16,701	188,299	7,627	3,449,629	122,547	603,118	35,410
1886	645,815	25,225	504,842	22,261	2,403,464	84,678	1,081,542	61,431
1887	232,875	8,992	316,879	13,472	3,466,780	118,445	1,183,710	50,992
1888	560,521	19,460	282,986	9,494	2,191,559	78,274	1,145,355	42,987
1889	658,515	21,923	127,41	3,936	5,558,715	136,901	1,083,633	46,871
1890	781,236	25,257	104,011	3,211	4,638,369	212,296	2,318,534	89,761
1891	186,620	7,611	4,750	244	3,909,660	188,557	7,871,740	241,062
1892	1,595,609	50,088	256,608	7,279	4,253,291	143,123	12,954,287	389,436
1893	377,600	12,934	45,980	1,440	5,826,352	226,168	14,581,067	421,330
1894	373,867	11,464	11,320	342	4,918,678	193,693	16,332,475	472,099
1895	483,576	13,800	18,041	487	4,070,378	153,534	3,053,666	155,654
1896	303,900	6,964	77,388	4,802	7,317,683	265,372	23,730,141	656,389

FOR SALE BY LEADING JOBBING DRUG, PAINT AND HARDWARE HOUSES THROUGHOUT THE UNITED STATES.

COMPOSITION PUMICE STONE.

UNEQUALED BY ANY SIMILAR ARTICLE IN MARKET.

The **ARTIFICIAL PUMICE STONE** is made in four forms of granulation, and each of these in two or three degrees of hardness, as follows:

No. 1. I	—Coarse in grain	[soft]	For planing wood, removing old paint, varnish, etc.
" 1. II	— do	[hard]	
" 2. I	—Finer	[soft]	For preparing ground wood for varnishing.
" 2. II	— do	[hard]	
" 3. I	—Superfine	[soft]	For fine polishing of wood, metal, stone, etc.
" 3. II	— do	[medium]	
" 3. III	— do	[hard]	
" 4. I	—Extra Fine	[soft]	For the finest class of work, metal polishing, japaning, etc.
" 4. II	— do	[medium]	
" 4. III	— do	[hard]	

The shape, granulation and hardness of the bricks, as well as the respective designations correspond exactly with those of Standard makes.

CAN QUOTE TO YOUR ADVANTAGE:

Shellac Varnish (all grades) **Pumice Stone** (brick)
Shellac Gum (white and orange) **Bronze Powders**
Wood Alcohol **Gold and Silver Leaf**
Pumice Stone (lump and powdered) **Glue** (all grades)
Liquid Wood Filler

F. W. THURSTON & CO.,
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ANTI-ACID CASTINGS
FOR
CHEMICAL WORKS

Your castings bills reduced 50 per cent. by the use of SEMI-STEEL.

ACID PANS AND KETTLES
POTS AND RETORTS

We make a specialty of castings that are exposed to the action of CHEMICALS and EXTREME HEAT. This includes vessels used in the manufacture of

SULPHURIC, MURIATIC AND ALL ACIDS
CAUSTIC SODA, ALUM AND HEAVY CHEMICALS GENERALLY
SULPHUR AND PLASTER BOTTOMS

ALSO DESILVERIZING AND LEAD KETTLES FOR SMELTING AND REFINING WORKS

This metal is superior to refined air furnace or gun iron, and on account of its close grain, freedom from blow holes and high tensile strength (35,000 lbs.) it will not crack, check, or burn out in spots like ordinary iron, but wears away uniformly throughout and the full value of the casting is thereby insured. Semi-steel castings will last ***50 to 100 per cent. longer*** than ordinary iron and the changing and remounting of heavy kettles is thus reduced to a minimum. We are supplying some of the largest works in the country with these castings, and can furnish them at practically the same price as for ordinary iron. Prices quoted on receipt of blue prints.

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BIRMINGHAM IRON FOUNDRY, Eastern Makers, Derby, Conn.

EXPORTS—(Continued.)

Exports of Lard.

Year.	Austria. Pounds.	Austria. Dollars.	Azores. Pounds.	Azores. Dollars.	Belgium. Pounds.	Belgium. Dollars.	Denmark. Pounds.	Denmark. Dollars.
1872	.....	.....	.....	.....	17,657,701	1,783,770	1,083,945	97,822
1873	30,287	2,847	6,690	871	34,757,698	3,097,692	.....	.....
1874	487,896	41,432	13,198	1,438	28,174,335	2,511,081	1,199,416	110,564
1875	571,072	72,015	4,386	732	13,384,904	1,837,809	191,756	26,800
1876	375,386	49,380	8,900	1,300	15,247,014	2,025,272	.....	.....
1877	300,108	30,550	16,400	2,245	23,882,271	2,709,808	221,819	21,200
1878	631,633	52,322	9,950	946	28,039,084	2,463,499	2,895,618	241,588
1879	1,022,300	70,868	54,952	4,281	33,051,511	2,249,103	4,476,543	305,637
1880	1,367,071	108,461	17,903	1,326	36,973,406	2,742,756	6,617,126	486,130
1881	351,602	30,933	1,956	168	31,933,168	2,913,709	10,479,232	963,044
1882	106,766	11,640	1,000	130	21,200,192	2,398,716	6,533,008	751,416
1883	9,374	1,125	5,687	640	14,384,359	1,723,355	5,996,373	684,410
1884	63,962	4,409	12,189	1,367	23,960,264	2,095,454	4,184,839	373,158
1885	.....	.....	6,520	580	27,047,424	1,989,124	12,143,688	915,118
1886	5,350	332	2,410	206	25,289,491	1,652,400	11,422,901	740,266
1887	1,707	119	7,340	695	27,849,720	1,963,682	16,426,832	1,130,746
1888	.....	.....	1,120	90	30,434,608	2,304,787	11,888,145	870,038
1889	670	60	3,130	219	29,428,995	2,549,779	11,256,296	900,499
1890	6,400	458	13,274	951	43,970,299	3,149,018	14,003,447	971,942
1891	106,000	7,427	7,001	438	49,132,982	3,352,419	13,025,375	858,591
1892	10,000	700	2,224	179	31,218,041	2,224,625	12,403,067	871,189
1893	.....	.....	1,823	223	26,098,547	2,475,040	7,121,384	659,256
1894	.....	.....	.....	.....	32,922,074	2,927,798	7,937,853	694,430
1895	.....	.....	.....	.....	38,163,335	2,877,197	6,952,467	543,638
1896	487,877	34,135	628	44	30,182,418	1,900,065	7,473,998	482,650

EXPORTS OF LARD.—(Continued.)

Year.	France. Pounds.	France. Dollars.	Germany. Pounds.	Germany. Dollars.	Gibraltar. Pounds.	Gibraltar. Dollars.
1872	15,305,222	1,450,990	40,672,851	3,998,293	.....	.....
1873	16,948,782	1,430,661	60,354,049	6,210,835	600	54
1874	9,937,387	882,513	64,436,929	5,967,601	94,594	7,882
1875	6,437,958	807,730	49,873,431	5,589,229	.....	.....
1876	10,059,487	1,346,504	47,894,522	6,242,432	7,178	811
1877	23,788,669	2,462,350	58,038,751	6,108,520	1,000	130
1878	50,465,990	4,274,074	85,419,191	7,419,237	44,208	3,706
1879	42,360,456	2,877,630	89,710,334	6,163,503	15,224	1,043
1880	55,462,701	3,941,971	85,509,388	6,379,894	32,538	2,801
1881	61,908,551	5,567,030	88,127,893	8,018,932	189,063	17,795
1882	31,610,618	3,699,876	55,467,728	6,255,927	207,700	22,959
1883	31,794,249	3,727,926	41,872,915	4,807,142	2,922	387
1884	29,369,343	2,675,702	50,997,568	4,674,581	1,640	167
1885	28,977,235	2,521,072	56,397,882	4,322,086	59,709	4,220
1886	33,094,775	2,260,660	62,024,208	4,126,311	1,100	79
1887	42,035,613	2,968,288	58,243,072	3,963,908	9,000	618
1888	19,358,170	2,210,091	53,024,148	3,907,840	.....	.....
1889	29,326,634	2,528,749	48,664,002	3,840,699	16,763	1,188
1890	44,348,149	3,074,728	116,527,934	7,815,484	16,125	1,134
1891	58,123,323	3,909,177	106,278,235	7,048,606	11,000	759
1892	45,921,376	3,296,907	110,967,731	7,722,727	.....	.....
1893	16,344,945	1,490,243	70,170,320	6,429,211	.....	.....
1894	29,841,320	2,695,228	96,010,508	8,488,653	.....	.....
1895	34,665,880	2,681,659	104,121,137	8,018,510	.....	.....
1896	32,093,211	2,131,390	121,893,903	7,788,975	.....	.....

EXPORTS OF LARD.—(Continued.)

Year.	Italy. Pounds.	Italy. Dollars.	Netherlands. Pounds.	Netherlands. Dollars.	Portugal. Pounds.	Portugal. Dollars.
1872	.....	.....	8,561,596	856,237	8,682	1,040
1873	292,177	22,914	8,907,652	781,453	.....	.....
1874	335,630	28,906	4,300,130	388,555	6,710	620
1875	2,119	288	3,328,993	449,803	.....	.....
1876	2,144	256	4,254,257	551,149	819	137
1877	.....	.....	5,597,166	603,470	30,869	3,234
1878	118,276	9,875	7,325,831	612,674	800	100
1879	1,347,854	93,373	7,142,466	501,737	9,274	744
1880	4,652,075	352,310	7,343,435	552,825	66,775	4,892
1881	3,378,872	331,157	8,437,986	800,986	24,067	2,222
1882	2,288,733	258,314	4,503,327	513,110	15,955	1,914
1883	1,873,045	223,049	4,384,553	521,973	70,995	8,615
1884	2,835,226	243,460	2,343,129	208,466	32,876	3,142
1885	2,786,220	206,496	3,279,165	250,694	45,024	3,962
1886	2,422,170	157,501	2,402,506	178,967	40,816	2,836
1887	2,741,208	189,099	2,016,023	141,901	17,459	1,298
1888	6,240,792	455,219	1,871,970	142,581	1,645	132
1889	3,791,911	293,500	3,179,853	258,213	12,818	1,074
1890	2,523,726	165,350	11,312,419	821,204	26,920	2,396
1891	2,441,116	147,874	26,681,523	1,948,883	44,567	3,538
1892	2,043,735	132,076	42,498,328	3,393,556	11,832	943
1893	1,476,500	130,258	25,268,281	2,437,825	2,380	294
1894	840,030	70,184	39,912,185	3,732,321	4,170	330
1895	625,760	45,008	28,456,561	2,294,213	4,454	337
1896	838,678	53,811	32,998,546	2,387,634	6,880	490

EXPORTS OF LARD.—(Continued.)

Year.	Spain. Pounds.	Spain. Dollars.	Sweden & Norway. Pounds.	Sweden & Norway. Dollars.	United Kingdom. Pounds.	United Kingdom. Dollars.
1872	86,114	8,276	95,470	10,170	78,763,193	7,952,522
1873	112,534	11,159	409,589	34,694	54,183,942	5,095,553
1874	111,781	11,190	988,435	101,315	43,010,878	4,009,271
1875	15,457	2,346	.....	.....	52,897,179	7,313,448
1876	60,129	8,264	.....	.....	50,771,281	6,673,077
1877	160,522	16,481	19,800	2,000	74,293,602	8,179,438
1878	47,004	4,321	252,064	19,588	114,484,711	10,175,475
1879	327,200	22,934	80,991	5,772	89,248,618	6,231,799
1880	1,248,771	100,513	.....	.....	112,834,201	8,355,000
1881	490,012	46,178	11,163	1,065	114,785,844	10,808,193
1882	117,305	14,409	.....	.....	80,517,164	9,407,757
1883	120,838	15,298	1,327	160	67,168,553	7,941,529
1884	345,332	33,906	194,438	16,614	88,575,018	9,007,441
1885	252,187	21,228	196,702	14,616	93,543,914	7,727,852
1886	259,532	17,382	631,371	45,302	94,588,774	6,701,359
1887	168,691	12,335	1,072,275	76,734	103,624,056	7,275,505
1888	331,432	24,837	508,202	36,907	95,051,395	7,344,622
1889	624,419	51,149	301,850	24,352	117,139,325	10,245,883
1890	426,134	30,979	724,109	47,353	150,808,980	10,944,212
1891	377,630	24,766	2,147,671	149,653	158,561,052	11,037,910
1892	521,119	34,861	2,291,932	163,984	124,952,485	9,072,470
1893	639,667	29,630	2,153,728	192,406	138,355,450	13,278,004
1894	291,082	24,826	3,457,297	288,763	149,691,959	13,458,563
1895	70,134	5,329	3,357,535	249,779	184,251,911	24,301,618
1896	51,845	3,377	3,704,516	232,801	201,924,144	13,521,493

Exports of Mineral Lubricating Oil.

Year.	Austria. Gallons.	Austria. Dollars.	Belgium. Gallons.	Belgium. Dollars.	Denmark. Gallons.	Denmark. Dollars.	France. Gallons.	France. Dollars.
1872	.....	.....	86,436	8,235	.....	.....	627	448
1873	.....	.....	6,729	2,340	1,580	630	261	261
1874	.....	.....	41,345	11,013	2,602	1,017	.....	.....
1875	.....	.....	6,856	2,770	.....	.....	466	280
1876	.....	.....	11,088	2,715	.....	.....	2,372	3,600
1877	.....	.....	120,927	20,981	1,346	450	.....	.....
1878	.....	.....	87,016	21,699	4,849	2,325	9,171	4,588
1879	.....	.....	200,344	53,646	.....	.....	46,900	13,097
1880	.....	.....	302,023	61,651	15,556	2,292	132,281	34,590
1881	4,100	740	283,134	61,995	733	165	311,749	70,847
1882	9,691	2,413	749,225	160,962	22,800	4,623	386,768	107,456
1883	3,310	1,140	822,785	229,593	55,997	10,336	613,725	165,819
1884	93,031	16,236	1,118,071	219,346	40,865	10,556	800,516	186,654
1885	73,833	15,210	1,262,334	234,718	35,212	9,048	1,190,487	277,346
1886	209,417	38,475	523,641	89,586	18,540	5,539	1,098,764	229,063
1887	1,257	327	1,373,087	252,389	36,656	7,899	1,729,551	361,339
1888	.....	.....	1,743,792	266,275	36,933	7,716	1,909,345	344,011
1889	1,200	325	1,765,007	257,436	60,319	11,175	1,787,372	358,901
1890	40,243	11,104	1,955,145	240,926	43,598	8,120	3,068,183	454,205
1891	15,960	2,020	2,337,030	302,938	68,956	9,857	3,948,257	537,508
1892	24,850	3,131	2,632,954	316,575	52,991	7,721	2,461,722	406,204
1893	54	54	2,426,926	280,388	28,271	5,550	2,426,659	429,737
1894	41,500	4,550	2,931,204	333,835	74,331	12,669	3,050,547	511,602
1895	83,550	9,000	2,679,832	315,942	129,439	16,281	3,271,804	518,258
1896	135,157	18,498	4,087,951	512,182	66,618	8,467	5,165,586	657,010

EXPORTS—(Continued.)

EXPORTS OF MINERAL LUBRICATING OIL.—(Continued.)

Year.	Germany. Gallons.	Germany. Dollars.	Italy. Gallons.	Italy. Dollars.	Netherlands. Gallons.	Netherlands. Dollars.	Portugal. Gallons.	Portugal. Dollars.
1872	164,718	58,740	.....	.....	247,614	89,537	.....	.....
1873	157,078	55,638	.....	.....	242,372	80,872	.....	.....
1874	40,900	15,144	5,000	725	115,457	34,697	.....	.....
1875	95,920	24,297	.....	.....	137,706	37,223	.....	.....
1876	69,056	19,466	370,944	23,661	137,376	37,722	.....	.....
1877	40,783	20,843	10,000	1,800	439,961	120,517	.....	.....
1878	270,648	69,122	28,888	2,254	717,299	205,313	.....	.....
1879	458,922	98,231	.....	.....	556,517	145,964	.....	.....
1880	786,066	163,515	3,000	600	1,332,204	212,387	.....	.....
1881	755,359	156,847	155,661	12,173	767,704	152,840	.....	.....
1882	805,938	174,282	18,694	3,678	726,239	175,556	.....	.....
1883	1,321,345	265,218	38,138	7,129	1,024,512	269,730	.....	.....
1884	2,095,200	391,967	374,347	35,166	647,695	129,300	.....	.....
1885	2,399,704	426,978	111,669	23,065	818,825	151,580	.....	.....
1886	2,125,369	390,807	165,100	29,900	498,455	108,788	40	31
1887	2,236,224	418,468	134,310	23,757	878,586	151,488	.....	.....
1888	2,520,545	465,312	302,963	32,058	804,311	149,102	.....	.....
1889	3,252,923	564,238	283,294	45,230	1,838,175	263,146	190	88
1890	3,670,937	586,495	516,463	81,213	2,037,437	289,686	10	11
1891	4,186,225	590,579	591,996	74,031	1,504,623	194,582	4,235	487
1892	4,512,639	661,296	414,971	66,036	2,229,116	289,473	64,050	6,827
1893	3,798,953	542,607	788,805	101,939	1,842,608	250,902	41,000	5,032
1894	5,637,471	678,544	1,356,340	177,189	2,346,896	286,692	79,104	7,797
1895	5,378,398	704,699	1,381,587	177,624	2,641,209	309,675	56,250	5,591
1896	5,990,561	752,308	1,324,994	172,785	2,724,546	315,029	154,859	15,485

EXPORTS OF MINERAL LUBRICATING OIL.—(Continued.)

Year.	Russia. Gallons.	Russia. Dollars.	Spain. Gallons.	Spain. Dollars.	Sweden & Norway. Gallons.	Sweden & Norway. Dollars.	United Kingdom. Gallons.	United Kingdom. Dollars.
1872	10,043	5,000	105,490	10,300	.....	.....	95,361	32,213
1873	7,942	3,393¼¼	155,009	21,371	1,144	440	235,326	90,851
1874	218	52	199,591	16,139	242	75	965,324	304,866
1875	22,043	6,645	192,679	14,613	190	55	861,542	218,147
1876	.....	.....	171,100	14,730	.....	.....	650,024	196,490
1877	.....	.....	258,840	29,638	.....	.....	692,637	230,248
1878	4,805	1,000	140,112	15,460	.....	.....	760,473	222,528
1879	47,190	13,000	.....	.....	.....	.....	1,209,390	264,598
1880	.....	.....	.....	.....	2,940	480	2,427,933	502,151
1881	.....	.....	40,200	5,050	.....	.....	2,550,413	528,452
1882	.....	.....	26,365	7,342	20	15	3,459,137	740,799
1883	.....	.....	7,573	4,200	141	75	5,825,632	1,189,449
1884	.....	.....	39,702	9,465	4,285	2,292	5,118,439	1,019,615
1885	194	42	17,869	3,397	2,540	1,406	6,524,524	1,293,487
1886	152	53	3,818	1,416	5,010	1,594	7,006,204	1,359,778
1887	250	100	8,385	3,973	11,065	1,635	9,608,281	1,643,324
1888	244	100	5,086	2,751	4,312	1,066	14,176,366	2,269,013
1889	.....	.....	3,239	1,325	23	34	14,198,667	2,259,364
1890	300	100	36,646	6,031	19,260	3,213	17,035,447	2,589,574
1891	.....	.....	16,363	3,278	5,531	1,519	18,767,573	2,553,646
1892	.....	.....	50,736	8,437	17,045	2,477	18,779,806	2,816,586
1893	.....	.....	166,709	19,945	11,486	1,386	17,683,132	2,380,522
1894	44,500	4,625	154,225	17,059	20,945	2,800	19,668,767	2,421,250
1895	3,355	559	179,717	21,660	61,254	6,618	21,209,497	2,510,072
1896	3,767	753	298,995	32,745	154,807	17,460	23,436,081	2,739,278

Exports of Oil Cake and Meal

Year.	Belgium. Pounds.	Belgium. Dollars.	Denmark. Pounds.	Denmark. Dollars.	France. Pounds.	France. Dollars.
1872	.....	.....	.....	.....	.....	.....
1873	.....	.....	.....	.....	.....	.....
1874	.....	.....	.....	.....	.....	.....
1875	.....	.....	.....	.....	79,000	1,840
1876	.....	.....	.....	.....	10,400	125
1877	.....	.....	.....	.....	422,889	7,000
1878	1,189,440	12,844	.....	.....	.....	.....
1879	10,395	140	.....	.....	16,765	169
1880	104,530	1,600	.....	.....	22,400	280
1881	210,350	3,270	1,238,651	13,938	10,500	135
1882	1,840,260	30,694	62,985	995	145,000	2,700
1883	189,095	2,816	2,797,200	27,032	111,930	1,150
1884	424,000	5,070	5,615,809	57,901	6,200,498	67,446
1885	2,465,325	30,296	5,914,683	61,657	5,082,624	54,681
1886	6,668,039	76,633	2,328,670	29,920	1,965,625	17,383
1887	16,707,426	194,655	3,413,209	36,048	2,552,880	39,823
1888	28,234,256	323,039	8,779,366	100,331	137,575	1,736
1889	27,884,070	327,678	5,685,950	55,980	1,694,080	10,157
1890	37,086,734	395,246	12,741,416	117,880	4,452,692	44,320
1891	44,231,340	516,081	5,232,640	51,392	10,254,551	103,642
1892	74,734,295	907,286	14,610,373	145,908	5,433,972	55,515
1893	75,333,321	977,223	11,004,900	115,524	11,184,641	122,966
1894	42,395,501	543,373	24,127,742	263,579	24,171,735	288,312
1895	42,072,067	519,321	33,903,505	309,178	8,512,920	54,412
1896	8,629,920	70,196	20,752,532	187,562	7,522,353	61,384

EXPORTS OF OIL CAKE AND MEAL.—(Continued.)

Year.	Germany. Pounds.	Germany. Dollars.	Netherlands. Pounds.	Netherlands. Dollars.	United Kingdom. Pounds.	United Kingdom. Dollars.
1872	.....	.....	.....	.....	199,869,968	3,800,878
1873	.....	.....	.....	.....	188,852,693	3,490,961
1874	184,511	2,915	.....	.....	210,059,662	3,976,958
1875	1,281,600	29,450	.....	.....	240,805,335	4,983,866
1876	22,450	550	.....	.....	281,466,910	5,634,669
1877	.....	.....	.....	.....	268,703,276	4,716,441
1878	67,451	1,128	2,025	20	352,518,447	4,905,642
1879	389,494	6,323	.....	.....	332,681,409	4,248,323
1880	3,214,817	38,244	40,000	650	444,293,863	6,084,772
1881	5,282,485	58,576	1,100,045	17,500	428,317,167	5,966,919
1882	41,955,868	525,084	3,167,497	55,167	383,349,000	5,486,112
1883	55,687,968	629,449	853,040	17,775	385,588,225	5,179,150
1884	87,871,247	1,011,449	373,588	6,047	410,121,249	5,705,141
1885	56,919,967	629,564	11,009	188	415,417,475	5,682,301
1886	73,475,791	710,170	1,584,076	20,169	487,971,742	6,014,760
1887	66,340,459	593,008	4,028,023	69,752	518,110,382	6,218,180
1888	75,108,492	692,151	2,162,718	33,100	431,762,443	5,015,274
1889	115,381,927	1,106,440	9,014,685	139,775	412,668,708	5,038,804
1890	143,942,782	1,397,064	8,944,385	131,127	488,052,905	5,677,604
1891	120,083,241	1,182,041	14,221,389	182,189	421,672,957	5,157,578
1892	205,405,517	2,138,998	36,786,500	477,882	475,681,552	5,789,974
1893	223,226,699	2,328,169	71,484,601	857,454	394,846,773	5,008,700
1894	249,144,048	2,713,908	56,594,570	625,167	330,859,244	4,151,784
1895	259,053,008	2,339,885	48,906,697	508,197	156,048,267	1,299,097
1896	192,102,418	1,854,301	45,347,915	425,612	128,150,031	1,118,380

Oil Cake only prior to 1884.

Exports of Lard Oil.

Year.	Belgium Gallons.	Belgium Dollars.	France. Gallons.	France. Dollars.	Germany. Gallons.	Germany. Dollars.	United Kingdom. Gallons.	United Kingdom. Dollars.
1872	1,093	853	36,063	28,287	3,684	2,751	385,448	307,227
1873	8,043	6,343	14,475	10,401	8,106	6,789	218,949	159,585
1874	200	140	....	....	2,160	1,471	77,723	56,302
1875	....	....	4,601	5,500	42	50	37,477	38,861
1876	....	....	....	....	....	....	32,315	33,922
1877	800	712	26,677	22,651	5,000	4,650	193,813	148,535
1878	10,463	7,630	165,592	108,871	14,396	8,299	1,189,127	742,158
1879	35,802	19,716	337,407	178,291	14,490	8,379	1,315,672	680,194
1880	25,212	12,923	341,728	177,472	24,149	14,516	912,115	487,250
1881	7,000	4,992	171,112	109,656	36,656	24,648	350,550	221,415
1882	6,020	3,775	68,746	59,021	19,342	15,571	215,780	184,858
1883	738	672	78,181	73,457	8,956	8,412	99,343	87,270
1884	12,758	9,115	111,829	74,378	12,885	9,352	263,636	187,793
1885	2,991	1,770	104,603	61,745	24,939	14,666	386,746	250,153
1886	8,179	4,170	122,935	63,103	25,817	13,384	507,442	251,758
1887	5,574	3,027	99,570	45,848	99,084	35,821	381,238	196,392
1888	3,558	2,134	61,773	33,487	35,066	20,309	343,138	164,306
1889	5,557	3,374	60,010	30,618	37,416	24,020	199,921	120,506
1890	5,776	3,067	73,520	38,521	36,349	18,880	558,543	299,192
1891	3,575	1,897	65,411	33,391	76,227	36,094	426,850	215,044
1892	17,245	9,312	31,976	16,949	14,166	7,250	291,823	155,394
1893	16,165	8,105	6,637	3,823	3,742	3,389	85,866	50,601
1894	1,250	961	12,804	8,127	68,864	45,522	104,806	65,863
1895	3,372	1,888	14,957	8,250	8,583	4,312	198,428	105,002
1896	6,356	2,389	56,840	28,534	9,153	4,404	269,490	134,343

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It is an insult to American intelligence to suggest that the foreign Serums are better than our product. They are not; they cannot be; they are not so good. Our serum is of RECENT production, hence more trustworthy. Absolutely sterile. Every parcel tested on animals. Put up in hermetically sealed bulbs. Bulky injections obviated by our use of a concentrated Serum.

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A permanent egg emulsion of cod liver oil is no longer a problem: It is a reality. Our egg emulsion contains 40 per cent. cod liver oil by volume. Stands the test of time. An elegant preparation.

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The Liquid Antiseptic, the Euthymol Tooth Paste, the Euthymol Cream, the Euthymol Powder—are shattering the records in volume of sales.

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A strictly pure article, in exact accord with the published formula. Nothing admixed and nothing omitted. Containers air-tight and moisture proof. Sold exclusively to the drug trade.

To our friends in the trade who have specialties of their own on the market we offer the positive assurance that, if they will submit a trial order to our private formula department, we shall use the best materials and take the utmost pains, precisely as if our own label were to be affixed. Formulas kept strictly confidential. We shall be pleased to quote prices.

Our Crude Drug House in New York:

Nowhere in America will the jobbing druggist find a more extensive line, or equal resources for giving entire satisfaction on the double score of quality and price.

PARKE, DAVIS & COMPANY.

EXPORTS—(Continued.)

Exports of Oleomargarine.

	Belgium. Lbs.	Belgium. Dollars.	Germany. Lbs.	Germany. Dollars.	Netherlands. Lbs.	Netherlands. Dollars.	Nor. & Swed. Lbs.	Nor. & Swed. Dollars.	United King. Lbs.	United King. Dollars.
1884	1,520	175	30,790	2,605	....	....	....	....	421,316	47,874
1885	....	....	805	145	60,342	1,242	....	....	104,288	12,482
1886	....	....	1,692	109	171,826	18,045	....	....	134,276	14,060
1887	....	....	....	....	....	....	....	....	17,900	1,850
1888	....	....	....	....	....	....	....	....	56,896	5,504
1889	....	....	25,072	2,575	....	....	20,351	2,081	79,410	8,533
1890	....	....	98,600	14,846	124,700	17,405	223,730	23,583	165,477	15,391
1891	....	....	....	....	553,718	83,058	....	....	5,448	544
1892	27,220	3,158	....	....	....	....	78,658	9,150	6,928	878
1893	45,640	5,266	31,080	4,337	174,930	21,000	46,743	5,935	12,192	1,518
1894	76,867	10,433	220,860	19,560	....	....	....	....	57,295	7,426
1895	60,180	6,889	1,593,260	123,363	4,139,363	370,576	1,300	143	1,193,259	115,924
1896	71,180	7,738	2,382,026	197,548	....	....	313,238	27,092	239,447	24,730

No exports prior to 1884.

Exports of Oleo Oil.

	Belgium. Pounds.	Belgium. Dollars.	Denmark. Pounds.	Denmark. Dollars.	France. Pounds.	France. Dollars.
1884	2,864,263	358,798	32,644	4,200	....	....
1885	2,328,777	270,681	2,211	318	....	....
1886	726,690	68,004	5,854	647	3 900	375
1887	710,224	66,917	96,860	8,748	851,281	81,567
1888	549,096	59,289	175,705	18,393	544,924	56,218
1889	389,878	37,931	714,606	61,059	498,495	48,518
1890	1,081,008	102,509	466,237	47,029	1,142,474	110,141
1891	557,469	54,663	2,792,531	268,664	680,823	67,652
1892	553,023	53,047	4,247,075	417,751	30,296	3,030
1893	987,560	103,267	4,316,817	422,195	2,394,280	219,209
1894	140,613	14,500	3,980,723	394,315	1,424,055	134,306
1895	2,757,665	250,778	2,237,856	210,056	.....	.....
1896	1,396 447	107,816	2,942,685	228,683	158,800	10,841

EXPORTS OF OLEO OIL—Continued.

	Germany. Pounds.	Germany. Dollars.	Netherlands. Pounds.	Netherlands. Dollars.	Sweden and Norway. Pounds.	Sweden and Norway. Dollars.	United Kingdom. Pounds.	United Kingdom. Dollars.
1884	96,551	11,866	33,127,827	4,127,827	.....	.....	1,545,947	161,156
1885	8,506	1,065	34,012,907	4,000,414	.....	.....	715,383	82,836
1886	976,734	100,321	25,562,417	2,737,545	27,131	2,961	372,411	39,903
1887	4,879,359	476,620	37,924,789	3,927,943	18,960	2,137	1,066,912	98,604
1888	5,689,497	589,113	21,217,662	2,307,627	.....	.....	1,674 237	170,525
1889	5,337,450	502,777	19,879,425	1,886,423	.....	.....	810,251	100,890
1890	10,561,964	1,054,371	52,236,964	4,897,674	276,500	26,147	2,452,951	238,387
1891	12,733,532	1,253,556	58,716,497	5,759,672	1,809,834	172,016	2,460,200	238,449
1892	18,584,059	1,935,537	58,952,145	5,686,497	1,884,279	175,591	6,629,411	669,819
1893	23,545,712	2,367,062	74,221,305	7,272,618	1,920,899	168,272	5,502,077	553,980
1894	28,996,667	2,837,846	74,248,165	7,124,442	3,066,833	289,666	9 520,217	976,187
1895	21,202,754	1,839,310	42,009,799	3,907,712	2,356,770	214,836	6,809,688	623,145
1896	23,021,053	1,575,906	61,575,306	5,056,488	4,002,473	348,462	8,701,258	664,943

No exports prior to 1884.

Exports of Glucose.

	Belgium. Pounds.	Belgium. Dollars.	Germany. Pounds.	Germany. Dollars.	United Kingdom. Pounds.	United Kingdom. Dollars.
1884	....	....	....	....	5,360,269	171,363
1885	325	12	4,726	205	1,619,856	53,230
1886	....	....	9,597	281	2,383,033	61,097
1887	1,691	57	50,739	1,634	4,223,911	110,688
1888	20,056	602	760,580	19,298	4,253,256	107,580
1889	627	14	2,533	71	30,554,376	726,760
1890	....	....	29,185	710	36,778,023	816,670
1891	....	....	52,387	1,202	57,430,176	1,374,044
1892	521,355	18,765	991,517	22,597	92,577,803	2,176,672
1893	1,132,310	24,354	764,688	16,533	96,639,862	2,094,050
1894	1,532,383	28,736	576,416	10,857	118,998,049	2,217,026
1895	523,858	10,123	223,542	4,158	128,565,802	2,470,661
1896	152,806	2,720	747,766	12,095	160,361,173	2,593,620

Exports of Glue.

	Belgium. Lbs.	Belgium. Dollars.	Germany. Lbs.	Germany. Dollars.	United Kingdom. Lbs.	United Kingdom. D'll'rs.
1872	....	....	....	....	720	182
1873	....	....	....	....	....	....
1874	....	....	....	....	5,435	1,441
1875	....	....	5,640	1,800	....	....
1876	....	....	....	....	157	42
1877	10,444	1,717	625	170	20,787	3,291
1878	79,579	5,822	24,800	4,186	51,152	6,402
1879	79,250	6,399	71,200	8,704	100,894	10,799
1880	12,736	1,548	6,505	980	43,736	5,013
1881	12,704	1,270	13,220	2,390	41,562	5,777
1882	61,515	7,137	14,919	2,946	5,283	788
1883	10,733	1,855	4,844	826	50,990	6,724
1884	13,633	1,898	3,687	628	36,973	4,316
1885	38,499	5,017	10,010	1,924	44,459	5,453
1886	23,745	2,735	13,348	2,015	63,990	8,061
1887	19,512	2,293	26,766	3,540	24,357	2,738
1888	28,674	2,475	47,893	4,793	51,736	7,484
1889	50,576	5,878	56,150	5,684	132,241	17,804
1890	38,731	4,199	72,752	7,200	368,000	44,501
1891	38,541	5,080	72,249	7,628	682,355	73,006
1892	39,066	3,042	73,112	7,834	310,567	31,820
1893	50,379	6,474	113,777	11,578	356,815	31,683
1894	23,890	2,688	89,738	8,892	468,373	42,855
1895	30,827	3,017	156,635	14,530	1,494,372	45,387
1896	62,483	7,236	292.477	18,539	483,141	43,834

Exports of Soap.

	Azores. Dollars.	Belgium. Pounds.	Belgium. Dollars.	France. Pounds.	France. Dollars.	Germany. Pounds.	Germany. Dollars.	United King'm. Dollars.
1872	....	....	....	1,653	1,819	....	....	4,015
1873	231	....	....	....	....	....	....	2,662
1874	59	....	76	348				3.367
1875	285	125	3,443	2,526				15,624
1876	225	....	1,200	4,392				14,202
1877	2,653	1,565	....	2,801				27,246
1878	310	49	....	2,047				14,578
1879	1,463	128	91	9,837				48,346
1880	548	887	433	3,051				102,096
1881	910	8	103	1,815				57,433
1882	185	259	209	2,533				61,162
1883	280	25	18	1,760				32,121
1884	263	3,104	408	987				40,444
1885	446	896	....	1,469				58,210
1886	496	471	15	2,466				125,946
1887	165	1,916	218	3,164				177,985
1888	275	4,446	713	2,243				217,870
1889	364	6,587	383	2,339				312,750
1890	173	2,285	783	5,207				462,712
1891	284	3,601	1,470	3,503				485,789
1892	68	1,446	872	2,249				438,992
1893	147	1,004	3,608	2,369				12,453
1894	5	1,051	684	21,629				517,379
1895	58	1,790	848	2,123				604,151
1896	....	828	708	1,653				655,304

Exports of Spermaceti.

	France. Pounds.	France. Dollars.	United Kingdom. Pounds.	United Kingdom. Dollars.
1872	.....	.....	78,878	23,476
1873	11,658	3,000	65,486	18,432
1874	1,229	319	178,707	46,321
1875	.....	.....	197,514	51,086
1876	.....	.....	29,069	7,444
1877	2,176	587	18,748	5,029
1878	732	197	32,374	8,704
1879	3,581	872	68,865	15,221
1880	4,548	1,107	62,253	14,538
1881	9,231	1,645	61,332	12,429
1882	610	125	143,543	25,335
1883	5,488	991	246,895	41,110
1884	4,050	740	130,297	24,372
1885	.....	.....	177,256	39,545
1886	3,160	1,250	259,705	96,624
1887	9,556	4,128	225,368	91,720
1888	7,556	2,852	157,335	58,371
1889	17,763	5,226	228,425	56,307
1890	16,535	4,519	287,682	75,590
1891	1,958	682	183,033	62,556
1892	16,147	5,634	178,513	55,499
1893	11,594	3,734	197,184	59,259
1894	7,255	2,196	121,434	34,700
1895	2,735	904	112,804	36,569
1896	10,978	3,738	109,463	37,390

Exports of Soap Grease.

	Belgium. Dollars.	France Dollars.	Germany. Dollars.	United Kingdom. Dollars.
1884	12,361	58,417	115,506	266,515
1885	75,002	132,312	92,396	178,751
1886	97,618	271,694	83,088	157,948
1887	51,508	208,570	97,734	159,547
1888	4,634	182,594	81,449	209,686
1889	4,105	81,019	51,997	256,976
1890	20,576	201,599	237,773	646,278
1891	64,649	373,022	426,250	835,872
1892	27,407	93,819	300,932	517,380
1893	16,125	40,620	195,025	550,629
1894	49,664	17,379	239,593	596,562
1895	11,758	3,707	116,126	323,467
1896	32,615	192,059	235,128	588,160

EXPORTS—(Continued.)

Exports of Naphthas.

	Belgium. Gallons.	Belgium. Dollars.	France. Gallons.	France. Dollars.	Germany. Gallons.	Germany. Dollars.
1872	843,966	87,724	2,407,117	270,473	596,219	82,510
1873	540,577	67,947	2,338,238	336,676	418,498	71,565
1874	1,000,773	101,243	2,649,961	285,619	84,185	76,192
1875	822,256	72,246	3,837,929	334,228	635,476	54.502
1876	1,436,746	131,448	4,581,781	446,508	1,150,846	110,183
1877	1,057,568	135,254	5,065,078	591,853	1,006,710	113,325
1878	1,294,037	105,598	4,472,842	394,444	1,295,568	100,948
1879	1,397,033	127,901	4,258,873	349,037	1,553,952	116,552
1880	1,046,708	68,395	6,356,314	401,234	2,043,312	115,749
1881	621,670	59,681	5,906,592	570,477	1,669,139	148,685
1882	1,142,775	103,397	7,028,524	650,261	2,512,185	205,904
1883	946,699	63,922	4,890,492	372,074	2,367,177	154,829
1884	751,330	57,757	6,181,754	390,289	1,661,780	106,649
1885	948,372	69,348	4,420,365	341,450	2,165,796	156,561
1886	683,443	60,420	3,669,501	268,068	1,571,458	112,361
1887	698,181	64,631	5,354,849	446,210	1,740,682	136,078
1888	372,844	28,700	4,292,432	335,994	2,111,876	152,206
1889	309,000	25,900	4,900,691	415,238	3,257,941	241,387
1890	303,520	26,300	4,195,704	364,477	2,915,298	159,834
1891	220,884	19,070	2,831,929	234,155	3,227,106	232,036
1892	156,600	14,000	1,561,284	101,916	3,471,652	239,214
1893	....	....	4,080,839	236,354	4,127,354	237,484
1894	....	....	3,764,569	227,766	4,278,757	233,908
1895	....	....	1,564,360	116,374	4,900,028	165,673
1896	....	....	1,672,056	153,152	2,814,217	168,099

EXPORTS OF NAPHTHAS.—(Continued.)

	Portugal. Gallons.	Portugal. Dollars.	Russia. Gallons.	Russia. Dollars.	Sweden & Norway. Gallons.	Sweden & Norway. Dollars.	United Kingdom. Gallons.	United Kingdom. Dollars.
1872	1,000	170	102,932	11,710	249,183	27,270	3,650,450	423,112
1873	5,200	1,187	70,238	10,404	981,007	150,991	5,078,578	792,875
1874	5,000	900	90,716	9,073	253,188	27,725	4,675,301	509,438
1875	1,500	240	....	....	739,309	68,122	5,609,186	594,203
1876	3,000	481	84,916	7,721	799,585	75,410	6,332,650	625,056
1877	....	....	50,796	4,092	707,939	69,776	7,117,268	878,425
1878	4,385	652	....	....	610,012	50,435	8,426,656	723,714
1879	7,200	976	....	....	576,811	45,524	7,033,105	590,340
1880	1,800	207	54,587	3,274	737,052	42,958	7,547,970	486,039
1881	....	....	78,757	7,900	579,510	43,196	8,056,503	797,740
1882	475	50	49,850	4,650	1,067,730	89,651	8,039,289	692,651
1883	5,350	560	50,032	5,690	997,097	68,295	7,265,786	539,297
1884	9,509	950	11,675	876	422,480	29,459	5,335,188	378,978
1885	1,000	125	144,503	11,710	1,065,816	77,088	6,477,105	505,052
1886	....	....	11,615	958	502,481	38,856	5,294,923	421,476
1887	2,000	215	....	....	870,177	71,423	6,601,030	577,715
1888	11,535	1,547	12,761	989	503,115	39,764	4,538,908	393,143
1889	1,450	213	28,223	2,258	739,716	57,035	4,702,673	378,714
1890	4,695	674	33,470	2,460	666,521	46,881	5,003,994	494,747
1891	4,400	549	....	....	544,633	41,930	5,058,325	421,126
1892	7,690	915	34,286	2,106	487,822	34,327	6,813,416	490,739
1893	4,175	546	20,213	1,113	631,062	36,568	8,209,526	524,410
1894	3,000	405	21,600	1,500	336,460	20,230	6,834,760	410,726
1895	1,925	288	....	....	574,878	42,574	7,343,355	526,315
1896	6,550	881	19,000	2,000	135,108	11,198	7,236,285	656,387

Exports of Crude Petroleum.

	Austria. Gallons.	Austria. Dollars.	Belgium. Gallons.	Belgium. Dollars.	France. Gallons.	France. Dollars.	Germany. Gallons.	Germany. Dollars.
1872	118,287	27,465	1,921,277	310,731	8,927,899	1,533,466	1,600,433	468,588
1873	.....	.....	1,067,646	169,313	12,320,314	1,981,220	2,847,543	468,850
1874	.....	.....	488,644	48,965	13,436,234	1,598,236	1,818,110	197,249
1875	.....	.....	1,080,171	95,454	10,086,253	944,395	1,660,673	152,451
1876	.....	.....	856,810	86,884	15,796,621	1,691,068	3,288,857	351,842
1877	.....	.....	1,369,240	196,572	20,029,950	2,692,049	2,716,725	406,875
1878	.....	.....	1,374,934	148,599	20,283,418	1,968,095	2,986,780	282,212
1879	.....	.....	.....	.....	19,411,840	1,602,730	3,224,450	257,366
1880	.....	.....	140,506	7,188	21,769,783	1,416,415	1,401,202	90,098
1881	.....	.....	322,115	20,794	25,195,118	1,752,865	1,948,694	124,831
1882	.....	.....	193,600	10,028	26,059,932	1,819,336	3,225,106	215,259
1883	1,724,807	122,727	.....	.....	33,570,402	2,373,472	2,613,524	178,927
1884	10,197,242	738,359	.....	.....	38,617,306	2,943,755	2,949,339	216,478
1885	15,135,708	1,031,564	15,619	1,050	40,993,633	2,912,110	4,773,953	325,474
1886	14,423,193	974,612	.....	.....	45,557,666	3,156,276	3,921,526	250,861
1887	6,309,345	380,578	.....	.....	48,678,396	2,996,468	1,458,765	99,716
1888	1,332,904	84,369	25,400	1,575	51,769,568	3,186,658	2,866,691	165,479
1889	3,935,418	241,924	.....	.....	53,955,708	3,666,320	3,064,421	169,517
1890	5,297,291	212,684	.....	.....	68,947,436	4,491,120	1,188,266	59,259
1891	1,753,652	95,136	424,748	30,580	61,663,973	3,485,659	3,107,137	137,538
1892	1,636,208	112,088	.....	.....	69,100,657	3,045,461	5,247,209	165,856
1893	3,763,741	188,186	.....	.....	69,424,609	2,709,222	4,182,963	121,263
1894	1,824,327	66,975	.....	.....	84,434,953	2,958,174	4,877,593	134,639
1895	2,425,441	94,573	.....	.....	72,802,459	3,308,095	3,966,870	119,689
1896	1,081,241	81,862	.....	.....	79,242,152	4,318,104	817,212	34,775

EXPORTS OF CRUDE PETROLEUM.—(Continued.)

	Russia. Gallons.	Russia. Dollars.	Spain. Gallons.	Spain. Dollars.	Sweden & Norway. Gallons.	Sweden & Norway. Dollars.	United Kingdom. Gallons.	United Kingdom. Dollars.
1872	.....	.....	.....	.....	387,551	63,437	217,394	40,217
1873	570,119	92,907	.....	.....	215,585	29,136	646,710	99,408
1874	216,492	23,815	.....	.....	425,358	48,440	490,781	49,531
1875	215,852	17,270	93	10	127,198	12,940	418,794	41,001
1876	.....	.....	.....	.....	.....	.....	.....	.....
1877	.....	.....	2,119,180	361,169	46,092	5,000	117,845	19,240
1878	.....	.....	282,638	31,600	46,324	4,500	514,951	73,901
1879	.....	.....	1,254,522	103,417	25,257	1,768	151,860	13,250
1880	.....	.....	3,241,887	254,883	75,958	5,012	2,862	218
1881	.....	.....	11,031,919	1,023,760	84,120	5,258	.....	.....
1882	.....	.....	9,572,234	878,375	148,235	9,453	.....	.....
1883	.....	.....	11,598,702	968,156	31,028	2,152	290,000	21,000
1884	.....	.....	12,191,827	1,102,002	151,155	10,929	.....	.....
1885	.....	.....	17,045,589	1,404,094	76,500	5,750	2,500	175
1886	.....	.....	13,780,735	1,109,446	186,794	11,600	26,044	1,628
1887	.....	.....	14,754,675	1,072,863	214,286	12,804	736,352	45,127
1888	.....	.....	24,288,028	1,947,050	187,230	12,840	100	6
1889	.....	.....	6,327,056	535,606	170,805	12,383	3,694	471
1890	.....	.....	13,934,088	1,253,228	188,785	13,900	3,155	347
1891	.....	.....	17,103,416	1,485,552	102,200	7,800	.....	.....
1892	.....	.....	17,064,929	1,111,306	296,177	16,100	2,629	181
1893	.....	.....	21,112,042	773,331	150,000	8,700	51	3
1894	.....	.....	15,176,034	454,728	185,400	11,700	.....	.....
1895	.....	.....	15,188,547	670,916	165,000	11,000	3,997,013	177,981
1896	.....	.....	12,869,235	664,316	131,287	10,345	.....	.....

Exports of Refined Petroleum.

	Austria. Gallons.	Austria. Dollars.	Azores. Gallons.	Azores. Dollars.	Belgium. Gallons.	Belgium. Dollars.	Denmark. Gallons.	Denmark. Dollars.
1872	2,623,654	645,883	.....	.....	16,363,278	3,880,509	2 346,894	574,314
1873	2,496,945	563,225	71,529	19,016	22,616,550	5,127,408	5,971,381	1,278,600
1874	3,774,883	630,410	99,390	20,343	34,101,776	5,506,531	6,532,362	1,050,083
1875	3,704,112	457,956	141,271	22,089	28,601,255	3,656,989	5,324,949	697,431
1876	5,356,627	696,051	92,220	15,505	32,329,080	4,182,963	4,760,380	651,446
1877	8,703,104	1,841,091	104,494	22,245	30,164,924	6,506,881	12,434,489	2,175,723
1878	9,115,164	1,313,257	137,871	22,363	37,958,310	4,989,693	9,743,904	1,291,597
1879	12,612,780	1,326,107	188,080	26,190	41,445,848	4,099,858	10,838,392	1,082,102
1880	16,536,306	1,257,797	141,947	14,024	37,068,778	2,845,852	6,593,515	519,452
1881	15,232,161	1,498,181	57,136	6,138	32,890,373	3,056,104	15,499,204	1,464,490
1882	24,180,311	1,951,773	190,556	29,467	46,956,099	3,674,948	13,948,322	1,062,539
1883	15,734,108	1,177,494	114,966	12,967	43,852,218	3,354,772	11,102,877	872,790
1884	12,830,742	1,051,314	176,943	19,793	42,732,079	3,561,188	11,432,673	937,457
1885	7,265,610	567,167	204,832	19,497	48,529,333	3,810,679	9,228,768	735,572
1886	1,421,008	113,267	181,398	18,144	48,371,109	3,833,852	9,443,660	734,894
1887	543,719	41,974	232,350	21,346	44,226,813	3,012,092	5,890,518	394,490
1888	290,505	23,147	179,309	16,328	45,765,138	3,254,456	4,485,778	328,337
1889	723,620	50,941	298,661	27,702	38,800,535	2,608,276	4,137,271	301,981
1890	.....	.....	249,973	22,600	41,391,323	2,221,947	7,147,115	496,243
1891	716,912	39,867	313,674	28,856	32,397,015	1,768,197	9,135,043	556,575
1892	.....	.....	169,310	12,880	31,471,121	1,451,302	7,019,575	336,621
1893	.....	.....	309,086	29,539	33,541,439	1,239,471	12,262,308	568,497
1894	.....	.....	201,259	14,441	36,312,974	986,478	9,299,251	396,707
1895	.....	.....	301,292	23,277	35,385,765	1,512,798	14,626,436	635,953
1896	.....	.....	286,840	21,654	35,413,123	2,126,576	12,693,967	680,171

$20,000 in Gold FOR RETAIL DRUGGISTS

BALTIMORE, MD, December 1st, 1896.

TO THE RETAIL DRUGGIST in the U. S A. or Canada selling the greatest quantity of Bromo-Seltzer during the year 1897, at one store *only*, subject to the conditions named below, we will give a cash prize of **$500.00** in gold.

To the retail druggist selling the next greatest quantity ***$500,000.***
To the ***5*** retail druggists selling the next greatest quantity ***$250,00*** each.
To the ***25*** retail druggists selling the next greatest quantity ***$100.00*** each.
To the ***30*** retail druggists selling the next greatest quantity ***$50.00*** each.
To the ***200*** retail druggists selling the next greatest quantity ***$25.00*** each.
To the ***625*** retail druggists selling the next greatest quantity ***$10.00*** each.
To the ***500*** retail druggists selling the next greatest quantity ***$5.00*** each.

Total, ***1387*** Prizes—***$20,000.***

REQUIREMENTS AND CONDITIONS:

1. No druggist is eligible for competition who sells Bromo-Seltzer for less than 10 cts. small (or 3 bottles for 25 cts.), 20 cts. medium, 40 cts. large, 75 cts. ½ lb.
2. Druggists entering this competition will be required to send us on the last day of December, 1897, all of their bills or invoices from their wholesale druggists or jobbers, showing the quantity of Bromo-Seltzer purchased during the year 1897. These bills or invoices must be accompanied by a statement (see form below) sworn to before a Notary Public certifying that the bills sent us represent goods sold only at retail, and at prices not less than stipulated above. As soon as prizes have been awarded the bills will be returned to the respective druggists.
3. Positively no account of sales will be accepted in this competition unless it reaches us prior to January 11th, 1898.
4. Druggists having more than one store will be allowed to compete for as many prizes as they may have stores, but under no circumstances can such druggists return all of their bills as representing the sales of one store; neither can druggists pool their sales for a prize. Names of the successful competitors will be published in the leading drug journals February 1st, 1898. Prizes will be distributed February 15th, 1898.

We sincerely trust that retailers will appreciate our efforts in placing every safeguard possible around this competition, and we believe that the above method will insure fair play to all.

Respectfully,

EMERSON DRUG CO., Baltimore, Md.

FORM OF CERTIFICATE TO SEND TO US.

EMERSON DRUG CO., BALTIMORE, MD. December, 31st, 1897.

GENTLEMEN:—On January 1st, 1897, I had on hand:

.....doz. Bromo-Seltzer, small, at - - $0.75 doz.....
.....doz. Bromo-Seltzer, medium, at - 2.00 doz.....
.....doz. Bromo-Seltzer, large, at - - 4.00 doz.....
.....doz. Bromo-Seltzer, 1-2's, at - - 7.50 doz.....

I have purchased during the year 1897, as shown by bills hereto attached, Bromo-Seltzer amounting to.....

Total.

Less amount Bromo-Seltzer on hand Dec. 31st, '97. -

Amount sold during year.....

I hereby certify that the above statement is correct, and that none of the goods were sold for less than prices stipulated above.

I further certify that all the goods were sold at retail at ***one store only,*** of which I am proprietor, and none were divided with other druggists.

.....Retail Druggist,
.....Street,
City of.....
State of.....

Sworn to before me this.....day of.....189 .

[SEAL] Notary Public.

Manhattan Spirit Co.

BUFFALO, N.Y.

MANUFACTURERS OF

COLUMBIAN SPIRIT and REFINED WOOD ALCOHOL.

Perfect substitutes for Grain Alcohol for use in the Arts and Manufactures. Under our new process, all objectionable odors are eliminated.

PRICE LIST.

Extra Refined, 95 per cent. - - - - 70c. per Gallon
Special Refined, 97 per cent. - - - - 75c. " "
COLUMBIAN SPIRIT, An absolutely pure and odorless spirit. - - - - - $1.50 " "

Less usual discounts for cash and 5 barrel lots or over.

AGENTS.

WILLIAM S GRAY, 103 Maiden Lane, N Y City
PIERCE & STEVENS, - - Buffalo N Y.
H C COLLIER, . . Binghamton, N Y
WM. H. SWIFT & CO, 45 Pearl St, Boston, Mass
MARTIN THAYER, 118 Water St, Boston, Mass.
M. L. BARRETT & CO., 219 Lake St, Chicago, Ill.
F. W. THURSTON & CO., 29 River St., Chicago, Ill
PAUL A. DAVIS, JR., 136 N. Water St, Phila, Pa.
JOHN DIXON, 15 N Front St., Phila., Pa.
A. L. WEBB & SONS, - - Baltimore, Md.

EXPORTS—(Continued.)

EXPORTS OF REFINED PETROLEUM—Continued.

	France. Gallons.	France. Dollars.	Germany. Gallons.	Germany. Dollars.	Gibraltar. Gallons.	Gibraltar. Dollars.	Greece. Gallons.	Greece. Dollars.
1872	2,121,914	510,644	35,055,780	8,325,381	8,799,497	2,257,066	248,006	65,600
1873	705,182	186,470	52,113,733	11,460,151	7,497,685	1,895,431	132,620	37,960
1874	1,971,742	329,382	72,398,842	11,730,861	7,567,478	1,438,472	183,000	32,668
1875	2,022,406	223,557	63,153,516	8,602,491	4,025,036	559,407	133,640	22,900
1876	1,174,330	127,328	66,056,328	8,559,859	3,836,139	585,236	837,660	143,235
1877	361,285	71,157	87,357,471	17,262,961	8,440,575	1,999,234	892,260	190,170
1878	.....	.....	85,632,598	11,460,476	8,340,223	1,320,800	237,550	38,025
1879	1,656,200	192,957	102,422,272	10,108,432	2,305,779	285,443	2,199,790	285,019
1880	338,979	25,544	113,024,559	8,664,098	3,399,963	327,820	826,350	92,802
1881	749,015	63,843	91,980,568	8,538,576	8,526,272	983,287	1,113,200	129,390
1882	2,517,752	206,618	123,718,466	9,694,187	6,284,010	701,780	3,137,477	329,232
1883	2,122,804	162,002	118,781,859	9,219,609	2,432,511	247,288	947,800	91,017
1884	1,864,772	159,347	107,703,735	8,975,387	4,953,828	517,431	1,904,440	184,635
1885	104,950	8,428	97,688,264	7,691,939	2,857,453	268,034	2,241,880	205,745
1886	520,836	39,787	98,804,755	7,752,121	2,118,760	200,364	1,384,870	132,617
1887	4,913,742	334,036	118,629,066	7,995,130	858,700	72,623	1,844,480	159,800
1888	2,048,441	155,101	113,415,233	7,229,342	1,725,550	159,300	1,973,620	171,546
1889	2,602,061	191,664	138,518,352	8,458,898	3,037,239	275,262	1,781,800	164,829
1890	2,088,291	155,270	140,264,089	7,766,452	804,000	74,502	1,756,780	167,117
1891	3,764,974	279,295	162,187,071	8,599,741	677,930	60,041	1,679,640	158,540
1892	3,066,535	205,560	133,417,314	6,158,730	412,360	33,277	1,324,040	100,370
1893	8,161,023	502,189	119,277,484	4,516,634	612,130	39,225	1,922,000	126,354
1894	11 812,001	532,886	86,388,785	2,490,461	512,050	30,799	1,977,710	123,503
1895	6,204,663	392,481	100,829,413	3,841,818	437,600	29,135	1,139,000	88,088
1896	5,338,501	406,760	121,841,266	6,766,308	701,600	61,833	2,237,000	185,122

EXPORTS OF REFINED PETROLEUM—Continued.

	Italy. Gallons.	Italy. Dollars.	Netherlands. Gallons.	Netherlands. Dollars.	Portugal. Gallons.	Portugal. Dollars.	Russia. Gallons.	Russia. Dollars.
1872	6,036,303	1,561,316	10,153,494	2,439,003	1,188,511	273,378	5,327,704	1,367,4 7
1873	6,147,649	1,558,139	9,676,174	2,217,511	1,171,754	267,163	7,403,866	1,667,781
1874	9,189,952	1,745,580	13,901,156	2,385,917	1,297,589	210,329	7,022,720	1,194,847
1875	8,543,761	1,310,819	10,109,370	1,270,790	957,807	122,935	3,819,717	608,160
1876	10,591,551	1,300,911	12,245,288	1,589,142	1,020,249	134,377	6,290,349	905,252
1877	11,421,725	2,469,377	8,000,646	1,752,652	1,653,479	303,525	4,709,806	734,250
1878	15,972,383	2,368,549	14,906,499	1,984,535	1,747,220	247,678	1,954,643	288,126
1879	16,565,508	1,936,191	17,564,344	1,753,584	2,290,284	230,590	3,141,915	336,685
1880	16,998,347	1,636,354	21,556,607	1,657,121	2,198,915	181,982	1,646,730	147,433
1881	12,571,966	1,466,075	18,941,326	1,856,375	2,682,622	265,680	1,306,203	135,055
1882	24,982,611	2,609,149	21,663,203	1,672,336	3,049,060	262,062	2,839,665	258,826
1883	14,318,657	1,384,194	23,648,441	1,849,370	2,530,287	219,545	1,233,180	103,817
1884	19,818,242	1,995,869	24,445,076	2,053,927	2,675,904	231,841	529,156	42,815
1885	27,252,992	2,530,122	25,781,510	2,047,597	3,388,146	282,622	213,120	16,942
1886	16,019,428	1,471,048	38,794,144	3,066,215	2,607,920	227,126	275,047	20,848
1887	28,846,473	2,098,980	44,727,434	3,068,051	3,207,673	237,062	.....	.....
1888	18,962,744	1,668,445	34,232,908	2,402,118	3,749,699	301,046	105,233	7,785
1889	18,825,621	1,727,534	41,158,182	2,716,886	4,186,838	348,393	119,690	8,430
1890	19,747,751	1,642,830	47,315,526	2,537,324	4,287,262	350,240	196,598	12,811
1891	20,995,728	1,495,511	54,879,032	2,794,315	5,035,331	417,267	.....	.....
1892	22,324,113	1,456,946	76,607,780	3,288,860	4,063,230	282,392	112,130	7,208
1893	22,815,279	1,344,582	51,298,480	1,746,939	5,731,230	363,814	80,264	4,164
1894	22,945,037	1,010,621	31,868,189	894,760	4,231,405	235,662	99,800	5,400
1895	28,017,572	1,188,156	45,900,640	1,763,294	4,708,934	317,739	.....	.....
1896	22,648,184	1,656,392	122,510,644	6,569,704	4,286,782	325,479	180,200	14,700

EXPORTS OF REFINED PETROLEUM—Continued.

	Spain. Gallons.	Spain. Dollars.	Sweden & Norway. Gallons.	Sweden & Norway. Dollars.	Turkey. Gallons.	Turkey. Dollars.	United Kingdom. Gallons.	United Kingdom. Dollars.
1872	5,031,920	1,276,719	1,832,012	427,061	3,180,949	890,535	10,088,136	2,483,074
1873	6,331,651	1,591,821	1,817,824	378,387	1,647,180	481,783	15,741,151	3,539,548
1874	5,544,146	1,009,990	1,412,650	218,422	3,357,269	707,448	26,079,008	4,353,405
1875	5,921,550	886,349	2,264,709	342,263	1,542,000	292,358	22,258,297	3,036,360
1876	6,991,823	1,065,088	2,076,503	271,841	1,180,130	185,626	25,201,057	3,420,692
1877	10,792,775	2,391,184	6,942,305	1,168,868	1,332,570	302,855	31,629,227	7,035,438
1878	8,901,411	1,241,154	4,397,154	599,845	2,329,856	366,771	36,650,663	5,219,215
1879	6,630,770	747,089	6,528,181	659,167	5,157,799	665,987	34,751,400	3,637,699
1880	6,651,382	603,422	4,730,840	377,852	3,097,900	297,181	48,832,070	3,829,171
1881	3,359,296	347,695	10,573,473	990,630	5,015,493	583,944	47,310,213	4,691,581
1882	2,406,509	247,500	9,427,287	773,196	8,303,254	876,438	70,934,445	5,880,495
1883	880,676	82,886	6,040,846	497,948	2,710,571	275,536	66,689,023	5,037,473
1884	758,864	71,677	6,493,682	546,434	3,929,300	385,371	48,781,791	4,323,588
1885	1,814,103	112,141	7,978,871	650,575	4,145,594	375,341	62,911,717	5,284,840
1886	96	29	8,258,596	669,447	2,172,890	195,597	73,447,181	6,180,411
1887	84,000	7,190	8,396,176	616,865	3,235,034	268,024	71,627,222	5,318,987
1888	544,960	47,053	7,264,587	534,364	2,075,734	171,568	68,787,549	5,121,227
1889	183,216	17,248	10,212,572	768,468	190,103	16,566	65,368,602	4,971,067
1890	169,400	16,400	11,772,106	912,241	.....	.....	66,393,246	4,849,920
1891	90,212	8,236	8,957,350	686,948	245,832	22,199	81,028,529	4,826,834
1892	212,450	15,465	11,159,824	776,047	156,560	10,068	94,901,777	4,770,821
1893	.....	.....	16,312,922	921,284	.....	.....	180,996,321	7,084,072
1894	1,800	180	9,848,074	487,026	208,000	12,896	274,555,010	8,132,407
1895	.....	.....	24,623,246	1,288,477	.....	.....	279,064,424	10,631,131
1896	256,737	14,528	10,582,677	787,765	.....	.....	181,883,062	11,094,009

Exports of Naval Stores (not including Spirits Turpentine).

	Austria. Bbls.	Austria. Dollars.	Azores and Madeira Islands Bbls.	Azores and Madeira Islands Dollars.	Belgium. Bbls.	Belgium. Dollars.	Denmark. Bbls.	Denmark. Dollars.	France. Bbls.	France. Dollars.
1872	27,692	129,478	. .	....	12,402	96,864	1,199	7,568	6,382	22,033
1873	25,449	104,724	21	146	32,887	136,435	601	2,150	3,242	12,033
1874	19,630	59,636	258	998	51,261	145,642	3,398	12,057	3,886	15,026
1875	36,810	100,936	84	298	33,734	83,313	5,779	17,556	6,932	17,626
1876	23,975	60,038	70	331	27,266	50,222	5,730	17,800	10,376	29,139
1877	39,625	46,108	159	466	31,941	65,638	6,300	20,519	21,613	62,382
1878	53,133	127,587	250	647	59,188	69,863	7,477	18,164	23,788	46,950
1879	50,834	85,135	133	541	76,432	127,419	17,477	35,413	29,889	61,666
1880	45,672	85,149	100	354	45,076	73,460	750	1,100	18,223	37,035
1881	52,764	114,020	445	1,347	53,431	106,027	2,557	7,051	31,132	72,433
1882	65,846	177,594	117	489	50,138	134,325	2,642	7,356	18,767	48,709
1883	59,802	127,871	149	592	69,386	141,182	1,031	2,231	33,015	69,931
1884	57,087	110,242	247	658	71,419	107,384	4,540	6,797	40,280	75,018
1885	49,776	82,768	486	1,311	51,906	66,157	....	....	4,567	6,932
1886	47,213	80,311	305	481	43,344	49,471	....	....	15,679	23,171
1887	47,283	74,920	1,168	2,018	59,009	75,661	256	307	13,281	15,036
1888	64,183	86,727	105	241	53,795	65,935	6,032	7,300	6,713	11,907
1889	55,321	77,464	1,078	2,095	56,776	78,050	1,115	1,600	8,167	10,650
1890	57,350	106,807	743	1,747	52,245	72,172	....	....	2,375	6,281
1891	35,117	75,184	1,504	3,370	48,789	80,115	6,019	8,907	753	1,902
1892	82,356	146,134	864	2,093	64,307	102,460	4,308	6,108	611	1,637
1893	72,975	103,976	1,146	2,320	76,228	99,598	....	....	520	1,080
1894	47,445	70,094	995	2,016	107,198	153,810	....	....	....	....
1895	78,651	120,625	1,844	3,638	77,460	107,718	....	....	150	275
1896	62,228	103,295	963	1,951	85,702	149,236	....	....	290	602

EXPORTS OF NAVAL STORES (not including Spirits Turpentine.)—(Continued.)

	Germany Bbls.	Germany Dollars.	Italy. Bbls.	Italy. Dollars.	Netherlands. Bbls.	Netherlands. Dollars.	Portugal. Bbls.	Portugal. Dollars.
1872	186,376	786,987	11,222	54,153	36,708	145,392	3,184	15,152
1873	218,525	857,256	15,124	58,225	60,840	208,608	5,220	22,787
1874	230,477	687,151	14,785	55,467	81,792	231,421	5,824	23,390
875	210,069	540,562	17,828	50,645	100,501	229,913	8,891	28,323
1876	129,629	271,932	17,616	53,606	90,138	177,657	5,670	16,691
1877	173,289	393,731	16,854	43,554	86,425	199,231	5,314	18,029
1878	225,261	514,446	22,564	57,034	92,190	193,572	5,307	15,151
1879	213,299	350,754	18,045	44,627	110,194	196,359	7,676	18,317
1880	197,795	366,533	17,404	36,041	115,016	211,294	7,536	24,281
1881	165,326	359,170	26,487	71,253	67,146	145,316	9,635	27,919
1882	255,627	663,041	22,271	59,081	104,013	258,826	5,022	16,996
1883	253,127	546,687	19,565	52,115	110,119	266,209	13,708	35,371
1884	369,048	604,289	56,269	108,541	160,720	306,032	11,522	25,496
1885	241,997	357,773	20,699	37,106	123,012	203,650	8,161	17,267
1886	219,743	314,630	33,889	52,931	91,526	148,327	10,943	22,340
1887	313,996	443,299	38,844	63,151	137,453	209,250	20,484	34,730
1888	294,689	392,818	55,973	81,211	172,593	272,842	9,500	17,027
1889	339,778	487,247	48,426	73,194	121,420	161,985	6,794	9,042
1890	311,443	472,647	70,237	117,832	160,156	237,294	5,462	9,378
1891	344,385	629,140	52,398	95,423	225,893	371,082	10,795	19,715
1892	465,732	721,135	71,142	110,143	231,081	323,458	4,608	8,547
1893	471,515	678,914	86,737	125,981	286,597	358,281	5,982	10,067
1894	422,351	571,514	57,148	83,407	152,035	195,456	2,666	5,442
1895	432,334	697,734	95,339	138,064	137,254	214,066	2,183	3,885
1896	384,587	1,031,354	51,791	84,940	181,955	327,347	8,330	16,217

EXPORTS—(Continued.)

EXPORTS OF NAVAL STORES (not including Spirits Turpentine.)—(Continued.)

	Russia. Bbls.	Russia. Dollars.	Spain. Bbls.	Spain. Dollars.	Sweden & Norway. Bbls.	Sweden & Norway. Dollars.	United Kingdom. Bbls.	United Kingdom. Dollars.
1872	16,344	75,333	8,038	34,848	290	1,198	320,901	1,645,046
1873	30,620	106,843	11,257	47,035	1,077	4,447	382,021	1,798,611
1874	43,957	157,081	3,798	12,279	1,500	6,265	413,374	1,426,028
1875	32,765	106,898	10,789	28,854	479	1,476	401,747	1,320,031
1876	31,915	90,608	10,880	25,524	2,213	5,426	434,578	1,274,193
1877	7,145	18,926	15,677	39,677	4,707	13,922	444,363	1,226,495
1878	45,683	99,074	11,467	26,471	4,203	10,921	425,785	963,556
1879	90,606	184,805	7,148	14,203	5,773	11,265	427,425	878,631
1880	50,923	134,877	3,847	9,814	3,042	6,332	458,691	1,161,521
1881	53,065	126,627	11,980	35,004	407	800	462,162	1,222,480
1882	73,127	189,799	13,294	36,304	80	180	455,014	1,326,486
1883	84,266	158,882	12,420	25,795	1,016	2,483	573,685	1,319,924
1884	104,536	180,524	27,861	47,137	944	2,096	561,596	1,116,794
1885	61,299	82,887	12,635	18,961	5,033	6,360	599,237	1,067,209
1886	76,124	100,681	17,856	25,519	1,709	4,130	443,071	837,832
1887	121,174	150,036	6,977	12,550	1,538	2,708	479,179	947,862
1888	140,391	169,546	15,075	22,143	650	1,131	552,975	890,144
1889	132,523	160,265	10,273	13,589	100	166	497,197	765,808
1890	134,628	206,266	17,892	24,170	1,600	4,500	609,754	1,137,621
1891	188,494	341,666	25,107	42,768	2,250	4,100	634,468	1,287,154
1892	66,550	112,842	11,289	14,593	2,263	6,164	704,617	1,309,292
1893	159,499	239,109	25,992	33,496	7,246	14,957	605,816	1,111,340
1894	175,004	263,204	21,059	28,228	11,286	15,940	704,660	1,277,797
1895	145,730	248,584	13,997	19,615	359	558	579,302	1,153,154
1896	162,296	282,039	8,718	15,272	12,152	18,250	588,146	1,221,048

Exports of Spirits Turpentine.

	Austria. Gallons.	Austria. Dollars.	Belgium. Gallons.	Belgium. Dollars.	Germany. Gallons.	Germany. Dollars.
1872	....	....	.....	.....	120,247	69,199
1873	....	....	271,904	135,414	419,438	209,399
1874	....	....	406,070	166,220	451,118	182,547
1875	....	....	498,882	167,054	298,543	96,230
1876	....	....	469,098	140,852	261,703	81,591
1877	....	....	475,758	139,168	288,926	88,423
1878	....	....	662,759	196,800	493,161	153,278
1879	5,044	1,512	1,116,713	293,455	606,769	161,609
1880	19,617	5,616	285,704	75,776	643,842	169,121
1881	55,248	23,393	903,329	321,807	398,206	102,717
1882	19,844	10,925	817,721	352,544	650,514	288,624
1883	80,236	40,341	1,093,526	460,960	680,551	290,608
1884	83,114	29,391	1,499,584	503,779	950,892	327,135
1885	81,968	24,495	471,272	138,487	666,836	196,310
1886	25,584	8,600	769,644	254,509	876,924	285,787
1887	46,134	14,203	884,812	287,280	1,132,975	384,223
1888	38,044	13,140	1,058,048	333,356	837,497	284,567
1889	41,482	16,829	949,360	365,183	1,172,535	452,304
1890	44,165	18,654	793,109	299,230	937,213	385,898
1891	5,276	2,150	809,420	308,949	1,530,650	583,761
1892	11,752	4,375	669,236	240,182	1,108,269	419,200
1893	68,092	19,053	923,131	267,205	1,564,420	446,280
1894	28,776	7,812	1,654,429	447,308	1,593,292	427,416
1895	54,413	15,036	1,015,358	275,477	1,731,818	463,263
1896	57,364	14,561	2,215,242	592,922	2,458,737	631,993

EXPORTS SPIRITS OF TURPENTINE.—Continued.

	Italy. Gallons.	Italy. Dollars.	Netherlands. Gallons.	Netherlands. Dollars.	United Kingdom. Gallons.	United Kingdom. Dollars.
1872	22,027	13,780	575,029	316,761	3,377,478	1,871,719
1873	35,000	19,650	640,356	304,214	3,111,471	1,507,797
1874	17,690	9,820	702,998	294,590	4,489,321	1,740,419
1875	750	315	200,360	69,653	4,042,696	1,362,839
1876	9,000	3,490	503,259	149,530	3,526,077	1,127,937
1877	34,500	14,600	235,211	73,460	5,176,893	1,710,267
1878	58,262	21,145	236,339	69,780	5,539,942	1,648,452
1879	47,600	15,949	591,109	153,704	4,660,250	1,237,699
1880	249,855	86,169	365,658	97,641	4,869,232	1,451,916
1881	36,245	12,605	131,248	45,190	4,284,353	1,537,137
1882	92,000	48,575	439,159	187,845	5,253,645	2,458,508
1883	159,750	77,835	761,768	314,340	5,850,388	2,586,646
1884	100,419	46,200	823,876	277,911	6,927,578	2,319,825
1885	45,500	16,162	1,074,228	323,709	5,918,371	1,723,733
1886	124,500	46,875	844,168	275,377	4,929,211	1,666,770
1887	161,500	63,163	1,177,078	400,323	5,817,098	1,941,587
1888	170,000	65,800	1,052,110	345,088	6,396,120	2,124,751
1889	106,000	45,750	1,059,745	415,780	5,586,667	2,125,805
1890	229,090	59,648	1,412,059	557,413	6,887,405	2,778,032
1891	143,840	57,026	1,783,866	665,317	6,925,065	2,570,858
1892	183,500	75,248	1,719,580	552,030	8,398,334	2,752,906
1893	208,783	61,850	1,813,129	513,546	7,597,263	2,140,210
1894	138,940	39,904	1,589,445	417,419	6,453,331	1,901,706
1895	278,903	80,422	1,981,352	517,215	8,103,283	2,138,641
1896	405,227	125,581	1,822,245	457,989	8,585,491	2,191,116

Exports of Tallow.

	Austria. Pounds.	Austria. Dollars.	Azores. Pounds.	Azores. Dollars.	Belgium. Pounds.	Belgium. Dollars.	Denmark. Pounds.	Denmark. Dollars.
1872	....	....	....	....	3,896,582	348,346	258,697	23,743
1873	....	....	....	....	1,062,789	95,106	....	....
1874	396,937	29,150	....	....	5,751,239	474,383	154,745	12,380
1875	....	....	....	....	3,161,777	269,272	1,068,768	93,560
1876	....	....	....	....	1,272,389	117,354	....	....
1877	115,604	8,398	....	....	2,328,370	205,028	....	....
1878	2,974,897	251,611	....	....	1,423,801	114,304	....	....
1879	4,028,075	284,163	895	71	2,021,563	180,706	140,837	9,800
1880	130,000	8,960	....	....	4,439,196	310,279	250	20
1881	1,631,331	110,550	....	....	3,783 676	251,246	....	....
1882	....	....	900	44	1,048,034	166,865	1,303,552	106,180
1883	....	....	2,967	251	1,956,925	193,550	68,337	5,178
1884	....	....	19,688	1,559	3,930,361	270,838	319,610	22,726
1885	....	....	44,269	3,124	1,445,835	100,381	369,175	23,578
1886	....	....	27,082	1,354	1,455,049	62,005	1,345	82
1887	....	....	86,116	3,531	2,018,291	80,934	....	....
1888	....	....	....	....	2,362,820	87,023	....	....
1889	....	....	106,142	5,560	996,062	43,325	150,891	6,940
1890	171,735	8,500	....	....	2,682,302	128,152	207,516	10,177
1891	4,300	215	65,721	3,356	2,831,291	146,707	1,138,975	58,306
1892	99,600	5,270	23,200	1,150	3,231,468	155,922	475,250	24,735
1893	....	....	14,273	747	1,379,588	69,193	93,800	4,985
1894	....	....	11,224	575	2,138,219	107,822	123,252	6,471
1895	....	....	....	....	203,000	9,740	608,450	31,121
1896	556,107	29,605	11,556	525	833,171	35,110	411,988	19,434

EXPORTS OF TALLOW—Continued.

	France. Pounds.	France. Dollars.	Germany. Pounds.	Germany. Dollars.	Gibraltar. Pounds.	Gibraltar. Dollars.
1872	18,455,982	1,718,661	5,805,988	519,988	.....	.....
1873	19,289,542	1,756,048	10,746,203	987,367	114,070	11,069
1874	14,072,974	1,147,114	11,647,819	925,908	.....	.....
1875	9,597,727	790 876	5,622,936	488,917	.....	.....
1876	10,435,886	951,763	4,218,748	334,405	580 000	50,000
1877	13,812,610	1,234 200	3,676,567	302,348	510	56
1878	18,790,904	1,506,502	3,720,206	281,408	166,407	13,360
1879	18,023,453	1 290,210	12,008,784	835,277	11,476	730
1880	10,776,901	701,120	11,688,328	749,253	.....	.....
1881	15,627,390	1,026,619	6,980,973	470,735	159,486	10,710
1882	3,428,644	253,750	249,637	20,214	.....	.....
1883	2,988,083	257,019	200,384	17,110	.....	.....
1884	8,514,737	686,501	2,044,785	155,075	.....	.....
1885	5,147,610	333,201	2,873,546	190,829	.....	.....
1886	2,081,141	113,500	1,005,222	56,793	.....	.....
1887	6,409,103	276,562	2,007,261	84,393	.....	.....
1888	9,322,418	411,943	1,858,944	80,969	.....	.....
1889	2,478,390	125,123	1,279,614	62,014	.....	.....
1890	4,568,790	221,290	7 630,510	353,626	.....	.....
1891	11,078,666	548,300	12,003,022	594,536	.....	.....
1892	5,107,431	257,104	8,881,041	443,854	.....	.....
1893	8,413,395	426,619	6,634,293	298,315	.....	.....
1894	7,144,510	365,755	4,385,603	220,862	.....	.....
1895	847,750	42,573	2,558,308	121,390	.....	.....
1896	6,588,820	357,547	6,983,531	297,873	.....	.....

NThe NEW YORK QUININE & CHEMICAL WORKS, LTD.

Bases its claim to recognition upon the quality of the goods

YQ it makes. They cannot be made better, either at home or abroad. Its products for purity conform in every particular to recognized standards.

NQ Its prices are as low as they can consistently be made, and no higher in any case than those quoted by others

YQ The retail drug trade is so well disposed towards them that they frequently specify our brand in their orders.

NQ We frankly appeal to the wholesale drug trade to furnish a fair proportion of our goods on open orders. They cannot do better, considering the subject from any standpoint.

YQ

EXPORTS—(Continued.)

EXPORTS OF TALLOW—Continued.

	Italy.		Netherlands.		Portugal.	
	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.
1872	12,013	1,000	4,542,441	427,415	241,840	24,286
1873	1,906,534	168,140	4,856,426	409,150	334,442	31,875
1874	1,455,719	119,552	4,220,158	343,016	78,164	6,049
1875	1,456,871	128,116	4,715,398	402,897	300,053	26,603
1876	1,613,752	145,794	1,905,776	171,648	28,482	2,665
1877	925,869	77,970	3,000,436	236,629	220,729	18,347
1878	1,191,343	98,102	9,506,535	736,683	434,217	32,970
1879	3,178,007	215,111	5,433,551	392,677	568,297	36,021
1880	2,538,504	148,001	5,002,082	336,286	510,751	31,336
1881	934,929	56,458	6,003,750	441,169	353,259	22,784
1882	19,926	1,190	1,821,102	135,463	94,062	7,295
1883	552,228	44,365	1,671,346	140,744	53,752	4,290
1884	776,511	61,585	3,251,034	241,468	172,138	12,734
1885	1,396,818	92,013	3,151,778	206,805	166,727	10,755
1886	1,866,793	103,440	4,959,884	277,888	201,014	10,290
1887	2,001,043	78,255	12,443,428	650,893	30,131	1,430
1888	1,158,850	48,309	34,909,183	1,652,269	26,020	900
1889	880,617	36,909	28,321,849	1,426,007	49,247	2,348
1890	4,336,366	192,742	33,589,760	1,500,075	99,025	3,410
1891	6,857,523	337,183	15,551,222	766,716	165,309	7,800
1892	3,545,343	166,572	21,722,609	1,096,038	76,895	4,050
1893	1,466,484	65,524	11,955,673	597,312	.....	.....
1894	1,863,637	89,014	11,192,045	562,211	174,730	9,505
1895	58,074	2,642	8,355,026	422,880	13,464	550
1896	1,496,955	62,005	4,845,526	251,355	56,205	2,132

EXPORTS OF TALLOW—Continued.

	Spain.		Sweden and Norway.		United Kingdom.	
	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.
1872	771,678	51,770	728,387	68,866	38,221,402	3,478,424
1873	32,700	3,188	1,369,371	123,600	33,946,806	2,983,533
1874	.....	.....	278,000	21,545	58,654,527	4,628,768
1875	.....	.....	.....	.....	36,276,578	3,178,165

EXPORTS—(Continued.)

1876	.....	.....	.....	.....	48,766,737	4,561,638
1877	281,419	22,568	.....	.....	62,299,360	5,342,294
1878	2,472,822	178,385	.....	.....	41,020,530	3,172,989
1879	2,215,695	102,321	.....	.....	44,930,280	3,115,748
1880	637,710	39,854	.....	.....	61,982,937	4,515,589
1881	288,391	18,048	225,000	14,900	51,797,172	3,820,134
1882	177,907	11,934	.....	.....	35,671,355	2,859,395
1883	.....	.....	.....	.....	27,277,971	2,253,868
1884	.....	.....	.....	.....	38,627,739	2,941,008
1885	.....	.....	9,500	475	33,110 720	2,157,694
1886	273,733	15,057	2,400	134	25,818,727	1,308,689
1887	10,030	473	.....	.....	33,960,544	1,442,312
1888	595,975	23,716	94,826	4,180	36,411,964	1,617,111
1889	.....	.....	1,600	128	34,858,526	1,737,545
1890	177,423	9,462	227,750	10,460	51,029,819	2,403,913
1891	1,118,034	54,465	606,888	39,075	52,970,476	2,574,160
1892	192,878	7,729	425,220	28,918	38,160 366	1,837,808
1893	.....	.....	718,640	45,600	24,603,744	1,219,210
1894	.....	.....	276,903	16,951	19,170,283	949,909
1895	23,841	1,190	411,250	22,633	4,784,782	227,908
1896	.....	.....	531,029	23,898	18,987,338	796,875

Exports of Paraffine Wax.

Year.	Austria. Pounds.	Austria. Dollars.	Belgium. Pounds.	Belgium. Dollars.	France. Pounds.	France. Dollars.	Germany. Pounds.	Germany. Dollars.	United Kingdom. Pounds.	United Kingdom. Dollars.
1884	.....	.....	4,925	360	6,000	440	771,092	62,564	16,230,251	1,190,621
1885	.....	.....	24,028	1,992	1,323	90	2,202,221	171,807	21,826,882	1,526,788
1886	.....	.....	.....	.....	2,244	190	1,402,427	101,795	22,798,006	1,617,604
1887	.....	.....	.....	.....	4,763	330	2,205,530	141,818	29,130,847	1,874,237
1888	158,455	7,130	.....	.....	1,370	108	1,576,354	100,275	33,815,143	2,027,856
1889	57,893	2,678	22,500	1,260	43,082	2,850	3,751,839	225,571	29,424,089	1,759,069
1890	.....	.....	.....	.....	39,678	2,256	4,823,073	256,504	42,343,246	2,064,247
1891	32,306	1,790	804,353	52,133	91,349	5,503	3,676,045	209,921	59,562,105	3,298,263
1892	181,250	10,846	172,713	11,164	685,750	43,523	6,491,864	390,860	54,816,457	3,320,770
1893	.....	.....	2,137,538	123,635	975,925	61,831	4,868,240	273,102	68,404,693	3,666,228
1894	260,029	12,753	3,373,761	167,317	625,096	33,006	6,962,212	292,236	73,818,156	2,847,309
1895	2,353,502	91,941	1,937,181	88,280	528,354	21,683	7,074,972	254,061	70,396,283	2,568,201
1896	1,688,619	69,091	4,572,837	201,913	1,975,715	81,773	14,945,716	624,161	67,832,620	2,759,112

TOTAL EXPORTS FROM THE UNITED STATES.

TOTAL EXPORTS.

	Acid. Dollars.	Alcohol. Proof Gal.	Alcohol. Dollars.	Ashes, Pot.&P. Lbs.	Ashes, Pot.&P. Dollars.	Beeswax. Lbs.	Beeswax. Dollars.	Candles. Lbs.	Candles. Dollars.
1872	71,160	.....	.....	1,413,901	108,474	446,474	126,130	2,299,840	341,210
1873	68,680	654,365	359,646	1,007,253	88,562	374,486	118,053	1,998,557	301,202
1874	66,423	1,893,800	982,287	1,502,626	116,766	342,068	113,800	1,995,092	302,277
1875	58,065	130,460	140,519	1,726,624	115,622	353,425	96,578	1,605,332	236,676
1876	50,300	130,381	93,666	1,309,861	75,597	218,610	69,127	1,513,475	229,311
1877	34,930	1,008,741	489,174	949,845	53,170	276,891	84,461	1,616,163	234,408
1878	48,524	2,258,401	864,162	679,882	38,389	326,613	95,074	1,567,265	218,985
1879	65,826	7,052,266	2,262,150	1,060,691	61,266	168,745	45,823	1,815,699	225,104
1880	71,231	10,112,598	2,586,685	1,231,523	110,578	193,217	48,880	1,954,725	237,627
1881	39,240	13,920,984	2,878,388	1,636,839	141,463	164,090	40,203	1,780,572	210,842
1882	39,930	8,374,990	1,727,526	515,805	31,362	124,227	32,325	1,839,154	226,687
1883	156,590	3,925,586	1,620,912	756,464	44,367	59,455	17,604	1,754,699	218,910
1884	128,616	3,897,082	764,983	744,769	41,436	51,748	16,042	1,907,409	240,500
1885	133,589	4,711,094	821,396	775,582	37,782	30,877	9,758	2,245,463	256,719
1886	85,753	2,253,590	599,826	580,057	30,792	136,179	36,626	1,580,556	176,124
1887	91,627	1,302,793	192,464	889,592	35,050	90,350	24,999	1,859,370	187,077
1888	104,790	343,642	87,690	512,863	27,943	78,070	20,554	1,502,179	143,331
1889	79,354	276,867	78,720	671,871	34,114	99,917	23,918	1,427,798	138,367
1890	98,084	328,339	178,257	526,380	26,211	171,391	19,727	1,522,153	143,073
1891	121,851	418,935	180,299	430,582	24,432	120,548	30,027	1,546,079	149,112
1892	107,480	1,440,219	475,937	1,307,634	99,566	127,470	31,898	1,715,130	165,933
1893	91,264	162,181	52,328	634,421	31,775	77,484	22,048	1,570,421	155,403
1894	108,326	173,527	62,166	650,261	29,205	469,763	118,093	1,918,051	189,462
1895	117,752	676,832	181,393	664,876	30,188	309,212	90,875	2,091,156	190,986
1896	99,500	331,407	85,292	969,874	41,208	222,612	65,844	2,660,844	230,146

	Cottonseed. Lbs.	Cottonseed. Dollars.	Dye Stuffs. Dollars.	Fertilizers. Tons.	Fertilizers. Dollars.	Flaxseed. Bush.	Flaxseed. Dollars.	Ginseng. Lbs.	Ginseng. Dollars.
1872	6,360,109	72,212	975,571	.....	427,797	600	1,867	401,200	341,616
1873	4,005,009	45,486	715,104	.....	224,084	490	1,345	350,141	341,144
1874	6,303,985	63,557	478,139	.....	279,551	286	900	400,619	448,760
1875	5,316,113	63,128	522,197	.....	607,071	43	137	497,487	658,926
1876	5,164,546	69,605	869,793	.....	917,362	98	98	550,624	646,954
1877	10,309,294	130,062	628,209	.....	1,076,602	3	8	440,406	562,268
1878	16,757,634	179,602	527,281	.....	1,208,049	263	437	421,395	497,247
1879	16,397,938	141,188	647,323	.....	1,231,841	49	107	391,264	465,611
1880	12,142,137	134,116	702,750	.....	588,777	.....	.....	391,083	533,042
1881	11,628,799	147,543	626,749	.....	583,360	.....	.....	338,841	561,545
1882	11,901,142	114,683	929,929	.....	997,499	.....	.....	262,728	483,171
1883	11,800,123	108,494	877,601	.....	1,029,678	.....	.....	414,023	848,393
1884	5,674,560	65,073	675,492	161,352	1,096,021	.....	.....	295,242	614,995
1885	11,046,985	114,389	656,148	136,976	910,778	.....	.....	377,345	751,168
1886	11,793,411	112,782	638,457	173,031	1,107,657	.....	.....	476,608	998,332
1887	11,232,141	21,441	786,623	220,792	1,397,534	.....	.....	330,831	689,735
1888	6,218,555	84,195	966,080	194,271	1,255,028	37,265	41,155	308,365	657,358
1889	11,373,865	119,279	770,033	129,539	988,569	.....	.....	271,228	634,091
1890	7,660,601	74,575	717,128	227,593	1,618,681	14,628	19,792	223,113	605,233
1891	10,108,014	85,315	660,590	231,915	2,182,274	144,848	184,564	283,000	959,992
1892	12,149,261	86,549	597,016	251,104	2,657,120	3,613,817	3,915,547	228,916	803,529
1893	4,519,327	35,809	679,373	460,062	3,927,343	1,837,370	2,195,374	251,205	792,928
1894	5,419,056	41,866	818,271	542,718	5,038,445	2,047,836	2,426,284	194,564	619,114
1895	11,051,812	86,695	575,183	638,586	5,741,262	1,224	1,433	233,236	826,713
1896	26,980,110	179,621	567,352	514,143	4,400.593	80,453	73,207	199,436	770,673

	Glucose. Lbs.	Glucose. Dollars.	Glue. Lbs.	Glue. Dollars.	Grease, Soap. Dollars.	Medicine, Pat. Dollars.	Oil, Cake & Meal. Lbs.	Oil, Cake & Meal. Dollars.
1872	.....	.....	85,717	17,988	.....	.....	206,970,910	3,966,868
1873	.....	.....	42,556	8,754	.....	.....	194,318,946	3,611,562
1874	.....	.....	71,564	12,939	.....	.....	215,336,380	4,099,360
1875	.....	.....	131,244	22,745	.....	.....	247,046,095	5,138,300
1876	.....	.....	24,288	5,798	.....	.....	287,119,800	5,774,585
1877	.....	.....	81,685	16,069	.....	.....	273,670,940	4,818,145
1878	.....	.....	250,563	31,247	.....	.....	342,446,439	5,095,163
1879	.....	.....	394,097	43,779	.....	.....	340,995,395	4,394,010
1880	.....	.....	150,718	22,650	.....	.....	453,023,225	6,259,827
1881	.....	.....	367,069	59,038	.....	.....	448,559,413	6,284,864
1882	.....	.....	275,494	46,274	.....	.....	421,269,116	6,302,828
1883	.....	.....	342,957	62,210	.....	.....	456,986,000	6,061,699
1884	6,773,115	212,628	222,313	36,386	715,650	1,340,583	524,847,331	7,115,153
1885	1,825,795	60,078	235,575	34,988	712,855	1,317,483	498,664,241	6,674,466
1886	2,572,090	67,775	297,653	42,137	921,337	1,344,665	585,947,181	7,053,714
1887	4,476,931	118,620	275,362	39,773	849,908	1,447,067	622,295,233	7,309,691
1888	6,263,751	163,573	356,899	46,773	924,777	1,545,514	562,744,209	6,423,930
1889	31,285,220	748,560	534,203	72,283	827,876	1,796,202	588,317,880	6,927,912
1890	38,256,161	855,176	728,696	88,484	1,506,819	1,741,925	711,704,373	7,999,926
1891	58,149,427	1,394,131	986,552	110,292	2,038,886	1,880,728	633,344,851	7,452,094
1892	96,486,953	2,272,779	580,815	66,403	1,298,598	1,842,889	826,398,719	9,713,204
1893	101,546,814	2,204,216	736,446	74,722	1,067,723	1,866,061	802,416,067	9,688,773
1894	124,796,288	2,328,707	999,052	101,372	1,380,299	1,621,019	744,603,229	8,807,253
1895	133,808,329	2,567,784	1,178,328	114,493	904,071	1,978,144	733,652,495	7,165,587
1896	171,231,650	2,772,335	1,760,470	166,930	1,516,763	2,479,510	798,366,723	7,949,647

	Oil, Cottonseed. Galls.	Oil, Cottonseed. Dollars.	Oil, Lard. Galls.	Oil, Lard. Dollars.	Oil, Linseed. Galls.	Oil, Linseed. Dollars.	Oil, Sperm. Galls.	Oil, Sperm. Dollars.
1872	547,165	293,546	533,147	432,483	28,375	26,914	693,674	979,682
1873	709,576	370,506	388,836	298,731	47,453	46,087	756,306	1,095,831
1874	782,067	372,327	252,577	203,317	22,047	22,692	529,903	827,991
1875	417,387	216,640	146,594	147,384	32,370	30,689	494,130	847,014
1876	281,054	146,135	346,323	149,156	30,331	23,770	891,762	1,366,246
1877	1,705,422	842,248	347,305	281,551	59,495	43,435	634,991	879,865
1878	4,992,344	2,514,323	1,651,648	994,440	38,901	27,232	723,398	801,218
1879	5,352,530	2,232,880	1,963,208	1,037,923	30,679	22,485	812,928	719,831
1880	6,997,796	3,225,414	1,507,596	816,447	38,431	31,214	482,153	487,004
1881	3,444,084	1,465,255	836,255	558,576	72,190	48,479	314,568	303,118
1882	713,549	330,260	506,259	434,124	52,548	35,970	540,064	551,212
1883	415,611	216,779	379,205	353,184	53,903	34,463	275,021	290,417
1884	3,605,946	1,570,871	712,696	504,218	72,221	47,698	343,069	325,385
1885	6,364,279	2,614,592	916,157	555,426	62,660	38,220	209,846	183,499
1886	6,240,139	2,115,974	973,229	500,011	78,885	41,963	179,808	149,936
1887	4,067,138	1,578,935	975,163	519,274	119,840	57,136	157,169	119,267
1888	4,458,597	1,925,739	930,616	509,514	92,134	52,049	136,092	94,568
1889	2,690,700	1,298,609	861,303	542,897	72,451	42,759	98,832	69,628
1890	13,384,385	5,291,178	1,214,611	663,343	89,288	55,036	162,565	124,601
1891	11,003,160	3,975,305	1,092,448	562,980	76,789	48,267	62,552	46,866
1892	13,859,278	4,982,285	901,575	496,601	112,386	54,020	140,655	103,031
1893	9,462,074	3,927,556	486,812	336,613	103,936	54,356	115,104	61,245
1894	14,958,309	6,008,405	681,081	449,571	92,861	48,550	.....	.....
1895	21,187,728	6,813,313	553,421	304,093	62,718	37,363	.....	.....
1896	19,445,848	5,476,510	833,935	426,401	67,159	33,260	.....	.....

	Oil, Whale Galls.	Oil, Whale Dollars.	Fish. Dollars.	Paints & Colors. Dollars.	Paraffine Wax. Lbs.	Paraffine Wax. Dollars.	Perfumery, etc. Dollars.	Quicksilver. Lbs.	Quicksilver. Dollars.	Roots, Herbs,etc. Dollars.
1872	1,171,646	552,756		112,572	.....	.....	377,577	862,094	691,673	.....
1873	288,263	154,243		128,233	.....	.....	450,282	714,783	626,021	.....
1874	573,775	280,750		151,430	.....	.....	453,554	501,389	580,521	.....
1875	895,907	413,411		128,301	.....	.....	281,444	986,469	1,075,796	.....
1876	1,067,515	436,072		186,050	.....	.....	375,011	2,711,584	1,740,293	.....
1877	1,026,038	442,165		239,025	.....	.....	269,785	3,894,311	1,767,266	.....
1878	904,988	411,808		323,341	.....	.....	295,269	2,552,388	1,230,008	.....
1879	2,236,265	756,248		225,490	.....	.....	286,754	3,624,827	1,418,331	.....
1880	1,022,889	349,109		231,774	.....	.....	302,993	3,574,412	1,360,176	.....
1881	597,812	229,726		287,338	.....	.....	292,939	2,955,948	1,124,955	.....
1882	1,083,925	420,730		424,991	.....	.....	285,060	2,485,551	959,128	.....
1883	226,983	115,490		470,289	.....	.....	356,016	2,762,554	1,020,827	.....
1884	488,915	190,704		477,469	17,089,817	1,263,197	403,205	1,242,080	427,219	45,422
1885	977,768	321,227		351,507	24,378,488	1,725,344	286,231	515,867	206,630	116,695
1886	1,184,871	361,171		358,536	24,289,693	1,729,313	913,943	536,927	219,259	114,447
1887	1,505,973	471,381		452,388	31,546,223	2,032,713	322,059	514,210	241,952	145,113
1888	1,496,501	409,845		492,709	36,005,522	2,168,247	391,956	1,037,852	531,122	137,756
1889	582,040	197,040		507,749	33,826,575	2,029,602	439,794	575,856	294,947	115,831
1890	2,006,606	565,374		578,103	48,516,551	2,408,709	430,151	317,511	183,096	194,992
1891	1,467,321	401,263		690,698	66,366,003	3,714,649	450,663	157,052	88,359	178,581
1892	969,828	337,968		709,857	64,998,867	3,965,263	404,706	306,047	149,798	198,744
1893	205,800	102,928		700,308	82,675,140	4,515,534	345,041	424,613	294,908	194,715
1894	294,371	140,851		825,987	95,115,954	3,820,656	327,835	1,599,013	618,297	244,438
1895	769,179	198,767		729,706	95,076,165	3,569,614	338,495	1,089,603	425,724	232,095
1896	844,125	196,701		880,841	105,882,575	4,406,841	350,116	1,536,504	628,673	153,896

	Rosin, Bbls.	Rosin, Dollars.	Soap, Toilet. Dollars.	Soap, All others. Lbs.	Soap, All others. Dollars.	Spirits Turpentine. Galls.	Spirits Turpentine. Dollars.	Spermaceti. Lbs.	Spermaceti. Dollars.
1872	692,728	3,256,854	9,436	8,876,736	606,527	4,495,441	2,521,357	190,736	56,996
1873	845,162	2,319,960	10,561	9,441,891	657,297	5,114,653	2,667,386	197,671	55,815
1874	929,342	3,046,431	8,460	9,345,358	651,282	6,784,173	2,758,933	304,865	78,346
1875	937,527	2,774,419	16,233	10,167,655	677,258	5,599,624	1,924,544	238,641	61,725
1876	824,256	2,188,623	11,007	10,057,478	673,732	5,178,934	1,672,068	141,157	35,915
1877	900,056	2,384,378	11,394	10,122,787	627,403	6,796,927	2,274,639	153,552	41,027
1878	1,042,183	2,329,319	36,272	10,910,742	621,867	7,633,568	2,333,569	228,276	58,302
1879	1,112,816	2,159,141	30,827	12,297,689	621,311	7,575,556	2,045,673	147,503	35,489
1880	1,040,345	2,368,180	38,567	14,566,891	690,122	7,091,200	2,132,154	197,847	45,018
1881	1,023,710	2,529,423	44,496	13,323,737	650,361	6,595,528	2,414,719	214,205	40,945
1882	1,156,012	3,240,803	49,700	12,279,255	618,233	8,136,493	3,798,034	265,593	48,721
1883	1,347,256	3,068,132	42,021	12,460,733	647,105	9,867,344	4,366,229	396,869	66,651
1884	1,545,211	2,909,074	39,636	14,169,424	700,790	11,300,729	3,885,500	259,947	48,553
1885	1,269,304	2,198,267	48,120	13,804,938	649,165	8,987,226	2,690,231	277,271	63,683
1886	1,131,560	1,963,091	60,646	18,610,518	772,131	8,217,678	2,811,777	334,918	125,840
1887	1,365,012	2,301,636	57,751	19,682,466	780,677	10,209,883	3,489,895	336,222	139,656
1888	1,492,314	2,273,952	59,496	18,901,768	756,368	10,585,943	3,580,106	226,576	84,018
1889	1,420,218	2,120,422	61,164	19,434,006	778,194	9,681,759	3,777,525	425,479	111,386
1890	1,601,377	2,762,373	67,027	26,432,953	1,041,990	11,248,920	4,590,931	449,384	116,757
1891	1,790,251	3,467,199	86,704	25,750,671	1,050,559	12,243,621	4,668,140	207,574	71,202
1892	1,950,214	3,418,459	99,914	24,150,465	963,293	13,176,470	4,500,721	273,981	90,842
1893	2,059,407	3,333,367	103,649	21,262,409	893,584	13,415,459	3,893,436	340,192	105,012
1894	1,987,128	3,285,896	101,290	25,028,944	1,038,432	12,618,407	3,437,245	342,780	99,467
1895	1,862,394	3,351,250	144,656	23,778,358	947,470	14,652,738	3,998,277	231,217	73,189
1896	2,172,991	4,151,748	163,382	30,673,547	1,115,263	17,431,566	4,613,511	248,168	81,221

	Starch. Lbs.	Starch. Dollars.	Tar. Bbls.	Tar. Dollars.	Turpentine, and Pitch. Bbls.	Turpentine, and Pitch. Dollars.	Varnish. Galls.	Varnish. Dollars.	Whalebone. Lbs.	Whalebone. Dollars.	Window. Glass. Dollars.
1872	3,331,763	165,415	36,722	131,016	.....	.....	56,776	78,343	172,889	137,855	.....
1873	6,133,323	327,940	43,535	177,435	.....	.....	62 294	80,618	324,653	320,214	.....
1874	7,435,064	420,809	71,920	238,779	.....	.....	68,306	96,018	114,530	115,098	.....
1875	7,382,862	442,682	54,905	127,206	....	.....	58,427	80,767	251,572	291,165	.....
1876	9,685,552	524,956	69,138	164,647	.....	.....	36,664	54,906	154,500	215,327	.....
1877	8,687,816	454,282	72,189	160,410	.....	.....	40,405	61,178	71,708	160,666	.....
1878	12,995,385	605,521	73,407	158,094	.....	.....	60,810	93,052	154,016	264,980	.....
1879	14,298,654	601,797	52,350	101,445	.....	.....	54,987	86,976	78,322	199,753	.....
1880	10,311,736	447,842	41,221	84,728	.....	.....	45,383	96,062	131,332	255,847	.....
1881	13,473,519	629,710	46,582	100,381	.....	.....	87,408	156,617	227,117	326,400	.....
1882	6,907,528	331,471	50,616	129,554	.....	.....	101,855	187,860	220,787	325,333	.....
1883	7,033,715	325,575	72,269	174,686	.....	.....	97,030	188,352	326,835	599,550	.....
1884	6,787,909	305,515	43,544	91,284	53,259	118,842	106,832	209,715	92,653	319,508	18,665
1885	6,851,963	276,274	37,572	66,449	16,178	29,847	80,399	134,103	188,482	470,039	10,055
1886	6,963,787	285,056	19,068	36,208	13,297	32,999	84,156	135,366	165,436	385,058	8,246
1887	7,408,386	281,072	20,471	39,772	14,245	29,270	96,427	149,871	173,452	523,267	15,955
1888	5,755,806	202,932	20,306	39,783	20,703	36,066	143,946	187,159	318,056	799,042	10,733
1889	7,228,193	272,630	22,028	41,938	14,355	25,966	150,153	202,727	261,555	762,464	16,864
1890	9,168,097	378,115	28,806	56,105	18,327	33,037	169,610	216,483	190,484	705,500	8,910
1891	12,883,821	475,817	17,265	39,094	8,541	17,180	153,365	203,485	159,322	717,230	11,244
1892	20,081,027	612,531	22,377	52,417	8,739	18,336	215,266	293,059	52,797	427,462	10,238
1893	21,938,456	707,093	20,042	40,244	8,926	20,254	210,067	258,400	148,130	543,045	10,229
1894	22,888,016	727,011	17,290	37,736	18,635	30,071	226,760	282,278	152,709	441,969	19,311
1895	11,788,900	366,800	22,773	41,673	12,365	28,573	256,890	363,959	259,315	699,495	11,140
1896	31,829,435	885,198	16,865	34,046	18,263	43,959	335,970	362,975	282,450	990,395	14,994

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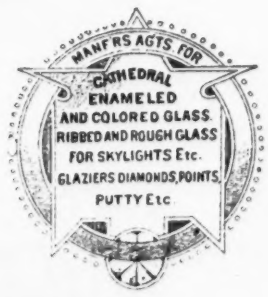

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Menhaden Oil Industry.

Menhaden oil, although at the date of the birth of the Reporter a young industry, had nevertheless grown with rapid strides and reached an importance second only to the whaling industry, but, unlike that, has maintained its position, the principal use for which it is required proving a permanent channel for the absorption of the greater part of the oil produced. The principal demand for this oil has been from tanners, and formerly large quantities were used by miners in their safety lamps. Considerable quantities have also been used in steel works, and for compounding cheap paint oils. As already intimated, the tanning industry has been and is the largest consumer. For steel works the oil has been of comparatively recent requirement, while its use as a paint oil, either as a substitute or as entering a compound, depends upon the price of linseed oil, and the demand is consequently irregular. During the past fifteen years fish oils from Japan have been brought into competition, and during the past few years an oil has been shipped to eastern ports from the Pacific coast and sold as "herring oil," which has tended to keep the price of menhaden oil from being advanced to high figures, which would otherwise have been the case by reason of the reduced production. A part of this oil from the Pacific Coast sold as "herring oil," is made from the refuse of the salmon canning factories, and, it being a by-product, can be sold at comparatively low prices. These oils, as well as petroleum, which is now used in miners' lamps, has caused the price of menhaden oil to recede to a point where, but for the demand for fish scrap or dried refuse from the menhaden oil works, the business would no longer be profitable, and during the past ten years the number of firms engaged in the industry has been considerably reduced.

Twenty-five years ago the chief use of menhaden oil was for the tanning of leather, and about this time the oil came into disrepute as a paint oil by reason of its having been too highly recommended for that purpose, and as all grades had been sold for the purpose its unfitness in many instances created a prejudice against it. It was discovered by the fishermen that in order to retain the market they had created they must produce or prepare their oil to more nearly conform to the requirements of the consumers. The price at this early date was principally influenced by the supply, and during the first two years—1871-72—varied from 40 to 60 cents per gallon, and it was of a quality that would not now pass as merchantable, the process of manufacture at that time being comparatively crude, though improvements were being introduced. A feature in the first two years under consideration was the efforts to bring the supply and sale of the oil under control, and this resulted in the high price which in turn prompted dealers to import fish oils from Europe, thus breaking the market and teaching the fishermen their first lesson on the risks attending the effort to disregard the law of supply and demand.

Fishing operations during 1873 and 1874 were moderately successful, and during these years the experiment of employing steamers built expressly for the purpose was found to be successful, and it was demonstrated that steamers, under ordinary conditions, proved the more profitable, but it was also found that their employment would necessitate increased capital. During the former of these years the price of the oil receded at one time to 30 cents per gallon, and the fishermen contended that at such figures the business was unprofitable. During 1874 the catch was comparatively light, except along the coast of Maine, where the fish were both abundant and fat. At this time the pressed and bleached oils were largely used as substitutes for whale oil and it was stated that "one concern sells more winter bleached whale oil than is caught crude." During the latter part of this year the price was advanced to 45 cents, and large purchases were made in London for American account, and this broke the market. The United States Menhaden Oil and Guano Association was organized in this city on Jan. 14, 1874, the first president being Luther Maddocks of Boothbay, Me.

During the next three years, 1875, '76 and '77, the vagaries and uncertainties of the appearance of the menhaden first attracted the attention of others than those directly engaged in their pursuit. The then new association was brought into working order, and the oil disposed of early in the season, so that the market was bare of crude early in 1875. The fish, however, did not put in an appearance until late, and the fleets met with no success until May 15, and the first oil was not received here until May 19, the fishermen hurrying their product to market to meet the urgent demand and realize the higher prices offered. The association having appointed committees on statistics, they sent out varying reports designed to influence the market, but it was soon found that about as much reliance was to be placed upon these as upon the reports annually received from Delaware about the peach crop. At the close of the season it was found that the catch of fish had been large, and there was a considerable increase in the amount of oil made. In the two succeeding years fishing began earlier, on May 1 in 1876, and about the 20th of April in 1877. The association abandoned its previous tactics of disseminating news as to catch, and thenceforth confined itself to its legitimate functions, although it had disclaimed any responsibility for the previous reports for which the several committees are said to have been responsible. The fishermen were successful in both 1876 and 1877, but in both these years the price of the oil receded to about 30 cents, and complaint was general that the business had ceased to be profitable. During the latter year the fish did not enter the bays, and the advantages of employing steam vessels became more apparent.

During the succeeding year, 1878, the fishermen were remarkably successful, the total catch of fish being over 767,000,000, and owing to the determination of the fishermen to keep up the price substitutes were largely used, which finally caused a break in the price, and to relieve the market of the large stocks over 23,000 barrels were exported, though this failed to prevent an important decline, and sales were made before the close for 25c. The fishing season of 1879 opened poor, owing to the protracted cold weather, and the price of oil continuing depressed the outlook was unfavorable. A bill was before Congress which had for its object the prohibition of fishing with seines having less than 5 inch meshes, and a special meeting of the association was convened at New London to discuss this bill and devise measures to defeat the same. A committee was appointed to visit Washington for that purpose. The committee were apparently successful. There were again large exports, the fishing during the latter part of the season having been good and the fish fat, and the shipment abroad of over 25,000 barrels relieved the market and enabled the fishermen to realize an average of about 30c. for their oil. The disappearance of the fish from the bays and coast attracted considerable attention, and at the meeting of the association, in January, 1881, Prof. Goode of the United States Fish Commission gave it as his opinion that the fish were not becoming extinct, as had been feared by the fishermen. The season of 1881 confirmed Prof. Goode's belief, as in one day in June fully 6,000,000 menhaden were taken between Montauk and Fire Island. The natural effect was a drop in the price of the oil to 30c., the season having opened firm at 40c. The catch of the Northern fleet during the first week in July was over 18,000,000 fish. It was thought, however, that the effect of the employment of so many steamers in the pursuit of the schools was pernicious, but it became apparent that the appearance and disappearance of the fish in the bays and along the coast was due to natural causes.

At the meeting of the association in 1882 the use of purse seines and steamers was condemned by some of the members, who claimed to see the ruin of the industry imminent if their employment was continued. There was a proposition before the New Jersey Legislature to restrict the fishing along the coast of that State. The impression prevailed that food fish were destroyed in large numbers, and in order to bring the true state of the case before the New Jersey legislators a committee was instructed to watch the course of the bill and attend the hearings in committee. The subject of menhaden as food for edible fish agitated the public mind, it being claimed by those interested in supplying the markets that the wholesale destruction of the menhaden deprived the blue fish of their natural food, and thus caused scarcity of the latter, and Congressional inquiry was set on foot. The catch was much smaller, and the fish had to be sought further from shore, it being the general belief that the fish had changed their habits from some cause not then understood. During the next two years, however, the fish were again abundant, and the business proved prosperous, the price of oil remaining relatively high. The association in 1883 considered the propriety of deferring fishing, as it was thought the fish spawned early, and also to increase the size of the mesh of the seines, in order to allow the small fish to escape. The fish appeared much later than usual, however, but came in immense schools late in May, especially along the coast of Maine, and the season was regarded as an unprofitable one, as it had taken nearly 600,000,000 fish to make 1,000,000 gallons of oil. New Jersey passed the three-mile limit law, and vessels caught within that distance of the shore were to be confiscated. A Congressional committee made further inquiry, but action by Congress was no longer feared, as it was believed the proofs submitted convinced the committee that legislation was unnecessary.

The season of 1884 was probably the most successful of any in the history of the industry, the catch amounting to over 858,000,000 fish and the amount of oil produced was over 3,722,000 gallons, while the prices realized for the product ranged all the way from 50c. to 25c., the latter figure only at the close of the fishing season. The succeeding year, however, proved less profitable, as prices ranged low by reason of large supply of oil, and the fishermen had been extravagant in the conduct of their business. Agitation of proposed Congressional interference during these two years also tended to disturb the fishermen, and quite a number retired from the business. The condition of affairs at the opening of the season of 1886 gave no hope of improvement, and more dropped out, the number of vessels employed being only 119, while the number of works was reduced to 26, while in 1882 there were 97 in operation. The fishing also proved unsatisfactory, and the price of oil for the first time dropped below 20c. The unsatisfactory conditions of these two years had a demoralizing influence on the industry, and the meeting of the association in 1887 was mainly occupied with discussions of the situation and plans to remedy the same. It was decided to favor a combination of interests to control stocks, sales, and regulate prices, which had been, the fishermen declared, "ruinously low." An agreement was later entered into to sell the products through a local agent, prices to be regulated by an executive committee and adhered to by the subscribers. At the beginning 26 factories only were included in the agreement, but it could not be brought into full working order at once, and, despite the action taken, the price of oil did not go above 22c., and sold as low as 18c. During this year the sporting fishermen, or anglers, organized opposition to the menhaden industry, and repressive measures were again menaced.

During 1888 there were several accessions of firms subscribing to the agreement, which became popularly known as the "combine," and it was agreed that fishing should not commence before July 1. The season proved fairly prosperous, with prices for the oil ranging from 20c. to 30c. Threatened inimical legislation in New Jersey again cropped up to worry the fishermen, but having brought about reforms in the conduct of the business the outlook was regarded as more promising, and the following season was opened with an increase in the number of works and vessels. Proposed tariff legislation agitated the fishermen, who thought competing oils, and especially degras, should pay a rate of duty which would insure fair prices for menhaden oil. It was again agreed that the opening of the fishing season be deferred until July 1, though fishing in Southern waters would probably commence in June, or earlier. Two crews, 26 fishermen, were arrested for illegal fishing in Buzzard's Bay, and both crews were fined $100 each. The case was appealed. The fishing proved successful, and, although prices barely reached 25c. at any time, it was probably one of the most profitable seasons. The subject of duty on degras again occupied the attention of the association at the January meeting in 1890, and an active effort was to be made by a committee to see that the interests of the menhaden fishermen be properly presented to the committee of Congress. The season proved an average one, with prices ranging from 20c. to 25c.

The prices realized for oil during the three preceding seasons were so discouraging to the fishermen that in 1891 only 27 factories were in operation, employing 67 vessels, though the results proved a little better, and higher prices were realized, the range being from 25c. to 30c. At the annual meeting of the association a committee was appointed to devise a plan to sell the product of the fishermen at uniform prices, and later a combination was formed for the sale of oil at a uniform price and by one agent. A decision was finally reached that the State of Massachusetts has jurisdiction over Buzzard's Bay, and fishing by purse seines was prohibited by State law. During the following year legislation by Congress was advocated and hearings held in Washington to permit menhaden to be taken in purse seines along the coast. During the season four menhaden steamers were seized and their crews arrested near New Rochelle under the new law prohibiting the catching of fish in seines. In 1893 final decision was rendered in the case of the seizures in Buzzard's Bay, and the same declared to have been illegal. The fishing during this and the preceding year was fair, and as the prices realized for the oil were considerably higher, reaching 40c. in the latter year, the fishermen were again encouraged, and the following year saw 33 factories in operation, with 84 vessels composing the fishing fleet. A fair measure of success attended the fishermen, but prices again receded, prime crude going to 20c. During 1895 considerable fish oil was brought from the Pacific coast, which prevented any marked advance in the price of menhaden oil. As some of this, commonly called "herring oil," is really a by-product of the salmon canneries, the oil being expressed from the refuse of these works, it could be sold at a low figure, and still prove profitable to the producers, there remained little hope that any improvement in price would occur, whatever the catch of menhaden might prove to be. The fishermen were again harassed with prosecutions in New Jersey for fishing with steamers within three miles from the coast line under the State law of 1884. The catch proved to be an average one, but as prices ranged low, from 19c. to 23c., the business was not altogether satisfactory. During 1896 the price of crude reached the lowest point on record, some 15,000 barrels being sold for export at an average price of 17c. The results of the season's operations, although the fishing was more successful than the average, were not regarded as satisfactory by reason of the low price of oil and scrap, and some of the fishermen declared their determination to withdraw from the "combine," and even the life of the Menhaden Oil and Guano Association was threatened.

Highest and Lowest Prices of Menhaden Oil.

The following tabulated statement shows the highest and lowest prices per gallon of prime crude during each of the past twenty-five years:

Year.	Highest.	Lowest.
1872	60	37
1873	59	39
1874	45	35
1875	43	31
1876	45	32
1877	45	32½
1878	45	26
1879	45	25
1880	54	30
1881	40	31
1882	45	36
1883	50	36
1884	50	27
1885	30	22
1886	28	21
1887	22	20
1888	35	23
1889	32	23
1890	25	21
1891	30	25
1892	38	30
1893	40	33
1894	33	21
1895	23	19
1896	20	18

Menhaden Statistics.

The following tabulated statement shows the number of factories in operation each year, the number of men employed, of fish caught, gallons of oil made and capital employed.

Year.	Factories.	Vessels.	Men.	Capital.
1873	62	403	2,306	$2,388,000
1874	64	308	2,438	2,500,000
1875	60	343	2,633	2,650,000
1876	64	366	2,758	2,750,000
1877	56	333	2,631	2,047,612
1878	56	343	3,337	2,350,000
1879	60	285	2,296	2,502,300
1880	79	448	3,261	2,550,000
1881	97	350	2,805	2,460,000
1882	97	295	2,313	2,838,500
1883	78	205	2,427	2,051,000
1884	52	216	2,114	1,534,756
1885	50	162	2,064	1,314,500
1886	26	119	1,154	1,234,000
1887	28	88	2,499	1,000,000
1888	24	85	4,568	3,000,000
1889	29	130	4,700	2,500,000
1890	28	79	4,368	2,500,000
1891	27	67	2,985	1,775,000
1892	29	65	2,002	1,756,000
1893	33	84	2,235	1,721,000
1894	44	84	2,356	2,000,000
1895	42	83	2,276	1,600,000
1896	35	91	2,115	1,376,500

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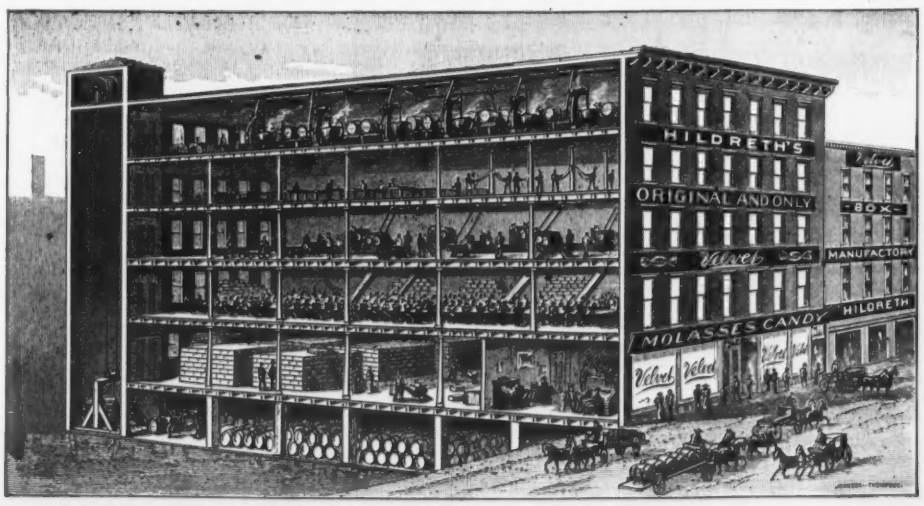

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	Fish Caught.	Oil Made.
1873	397,700,000	2,314,800
1874	492,878,000	3,572,837
1875	563,327,000	2,681,487
1876	512,450,000	2,992,000
1877	587,642,125	2,426,589
1878	767,779,250	3,809,233
1879	637,063,750	2,258,901
1880	775,875,000	2,034,920
1881	454,192,000	1,266,549
1882	346,638,555	2,021,312
1883	613,461,776	1,166,320
1884	858,592,691	3,722,927
1885	779,214,415	2,346,319
1886	283,106,000	1,805,544
1887	233,564,800	2,273,566
1888	404,788,950	2,051,128
1889	555,319,800	3,227,624
1890	553,686,156	2,939,217
1891	356,138,000	1,946,642
1892	223,623,750	1,329,644
1893	366,406,625	1,269,002
1894	533,361,900	1,999,506
1895	461,747,000	1,767,754
1896	401,425,800	1,741,530

Whale and Sperm Oils.

Twenty-five years ago the whaling industry had already started on its decadence, the production of sperm oil in 1871 having been 46,534 barrels and of whale oil 75,152, while twenty years before the annual catch of sperm oil averaged over 100,000 barrels and of whale oil over 250,000 barrels. It had become a matter of earnest solicitude what substitute could be found, but this problem had been solved and at the date of the establishment of the Reporter petroleum had already taken its place as an illuminant and was being brought prominently forward as a superior material for lubrication, and the comparatively small production of sperm oil ceased to be a matter of concern, as the processes for the production of the various products of rock oil were perfected. There is, probably, no other article which at one time was regarded as absolutely essential to the comfort and progress of mankind, and which has steadily decreased in volume while the requirements increased, that has been so effectively supplanted in its principal applications as has sperm oil, and the discovery of petroleum may be regarded as providential. But during the past twenty-five years changes have taken place in the industry no less interesting and instructive, though less important. At that time New Bedford was the principal port from which ships were fitted out for the pursuit of the leviathans of the deep, and Provincetown and New London were important whaling ports, while a number of other New England towns which were once prominent in the whaling industry had already ceased to be known as whaling ports. Among the more prominent are New London, Mystic and Stonington. Of late years even New Bedford has had to take a more modest position, the principal seat of the industry now being San Francisco. A recent writer in New Bedford, whose identity is unknown to us, has eloquently and pathetically stated the situation at some length, and from which we extract the following paragraphs:

It looks as if New Bedford had seen the end of her whaling, the industry on which were built the foundations of most of the fortunes that New Bedford families boast. Along the entire stretch of the city's wharfage front lies, moored with rotten rope and rusty iron chains, a big fleet of strange-looking craft, which in their day were the pride of this Yankee nation. Many of them have been there for years, hardly a year passing without some craft's return from a long and unsuccessful cruise to tie up and sail no more. * * *

Last week two more were added to this unused fleet, and as the chains that were to fasten them rattled out from the lockers, many a sigh went with them. These two ships are the barks Canton and A. R. Tucker, both of which returned last week from an unsuccessful season in the Arctic, and with nothing to show for the trip but an expense account big enough to discourage the most sanguine owners. The men who manned the craft received nothing but their board for their sixteen months' of labor. They had shipped on shares, as whalers do, and as there was nothing to divide, they got nothing.

It has been with many a pang that old New Bedford whalers saw the pride and glory of the city disappear, and the business of whale-catching become monopolized by the steam whalers of San Francisco. Many of them believed that a strong effort should be made to revive the industry, and some of them went so far as to assert that New Bedford could regain her old place if she went about it in the right way. Now the men who talked of the revival of New Bedford whaling have crawled out of sight, and everybody is waiting for the last of the Hudson's Bay fleet to tie up to her dock for the last time and forever. * *

The story of the decadence of the industry may be gathered from a review of the events of the past quarter of a century, although, as before stated, the importance of sperm and whale oil began to wane some years before. That the true cause of the decline in the industry was not fully appreciated twenty-five years ago, when hopes were entertained that the business would be revived, is evidenced by the writers of that day, who laid great stress upon the fact that whales had become scarce and shy, and who claimed that as the fleet was greatly reduced the whales would have an opportunity to multiply, and then the industry would resume its old-time importance. They failed to interpret the "writing on the wall." The oil had ceased to be an absolute necessity, and the world had adopted other materials, which for most purposes answered all requirements.

During the last three months of 1871 the price of crude sperm oil varied from $1.25 to $1.60 per gallon, and that of whale from 56 to 80 cents per gallon. During the early part of the succeeding year there was a sharp advance in prices, due to reports of extensive disasters to the whaling fleet, which later proved to be even more serious than at first reported or believed possible, the Arctic fleet being practically destroyed, and forty-six lives were lost. It appeared, however, that considerable oil had been forwarded in other vessels, and some on board the ill-fated fleet saved, and prices receded toward the close of the year, mainly owing to the decrease in consumption, which now became unpleasantly apparent to all engaged in the industry, the higher prices having induced many to resort to other oils, and, finding them answer their purposes, thus much of the outlet was permanently lost. During 1873 the supplies increased, but the demand did not, and consequently prices receded still further, whale selling at 60 cents; sperm at $1.40. The Arctic fishery during 1874 proved an entire failure and prices advanced, though supplies were later received, causing a reaction, which in turn was succeeded by an advance, caused, as then stated, by the high prices ruling for lard oil, and this continued into the next year, when whale oil sold at 70 cents and sperm reached $2 per gallon in March, this being the last time it reached that figure. These high prices stimulated the fishery and preparations were set on foot to increase the fleet, which had been reduced to 163 vessels of all sizes.

The year 1876 again proved one of disaster to the Arctic fleet, twelve vessels being reported lost, but, notwithstanding this, the price receded to 58 cents for whale and $1.30 for sperm oil, and the following year the price of the latter dropped to $1.05. In 1878 sperm oil, for the first time, was sold below $1 per gallon and whale oil below 50 cents, the prices reached being 75 and 40 cents, respectively. This brought forth loud complaints from those engaged in the whaling industry, who contended that should prices remain permanently below $1 per gallon for sperm and 50 cents for whale oil, it would mean ruin to the industry, as at such low prices the pursuit of the whale would be unprofitable. The demand, however, continued to decrease as cheaper substitutes of mineral origin were placed on the market, and, although there were fluctuations, the price of sperm oil did not remain above $1 for any length of time.

In 1881 whales appeared along the Atlantic coast of the United States, and the impression prevailed that the whales had changed their habits, and had greatly increased during the preceding half dozen years in consequence of the opportunity given them to multiply. It was later determined, however, that their appearance in such unusual numbers along the Atlantic coast was due to an abundant supply of food brought up by the Gulf Stream, although there had also been a noticeable increase. The whaling fleet was this year reduced to 161 vessels, sixteen having been retired during the year. At the opening of the next year whalemen seemed to be encouraged, as the price of sperm had advanced to $1.15, and stocks were greatly reduced, but the risks were so great few cared to extend their investments, and in 1883 the fleet was reduced to 138 vessels. California now also became an important factor in the industry, and the following year the fleet was reduced to 125 vessels, of which nineteen sailed from the Pacific coast. The price also again receded and complaints of the unprofitable results were common, while the price in 1886 receded to 36 cents for whale and 67 cents for sperm oil. It now became apparent that the East had lost its prestige, and that California would thereafter be the principal seat of the whaling industry. During this year an active export demand was developed in the early summer, and under this stimulus prices were advanced, but this proved only temporary, and in 1887 whale oil sold at 35 cents and sperm at 57 cents per gallon. These prices were regarded as ruinous, and although stocks continued to decline and the whaling fleet decreased, there was no important recovery.

The succeeding four years proved uneventful, and presented few features of especial interest. The perfection of mineral lubricants had been such, and their price so low, that the demand for sperm oil for this purpose was restricted to insignificant proportions, although there were still many who clung to the belief that no lubricant could be produced to supply the place of refined sperm oil on fine machinery. During this period, also, sperm oil began to give way to mineral oil for lights where an absolutely safe and practically non-explosive oil is needed. In 1891 the fleet was reduced to ninety-seven, and before the close of the year this was further reduced to ninety-two. The stock of sperm oil was reduced to about 7,000 barrels, and only a few hundred barrels were held in first hands, yet prices continued with a decided downward tendency, although there were fluctuations from time to time to buoy up the hopes of the now well nigh despondent whalemen. On the opening of 1893 the stock of sperm oil was only 5,500 barrels, and of whale 710 barrels, and the prices of the former reached 90 cents and of the latter 45 cents.

The last three years have not been fruitful of interesting developments. The principal seat of the industry is San Francisco, and the decadence of what was one of the most important industries of New England has shrunken to insignificant proportions, as is so clearly and pathetically set forth in the paragraphs quoted above. If the whalemen had cause for discouragement before they have now no ray of hope for any improvement, the price of oil during the past year reaching the lowest on record—30 cents per gallon for whale and 35 cents for sperm at New Bedford—although there has been some advance since. The extremely low prices, however, have not affected the demand, which continues very light, and the slight difference in the price of whale and sperm was due to the fact that there was, for a long time, no crude whale oil in first hands, it therefore realized a relatively high price.

Whale and Sperm Oil Statistics.

The following table gives the catch of whale and sperm oil, in barrels, and the range of prices of crude oil, per gallon, during the past twenty-five years:

Years.	Catch of Sperm.	Catch of Whale.	Price of Sperm.	Price of Whale.
1872	45,201	31,075	1.35@1.62½	72@79
1873	42,053	40,014	1.40@1.55	62@79
1874	32,203	37,782	1.50@1.65	62½@67½
1875	42,617	34,594	1.50@2.00	60@70
1876	39,811	33,010	1.50@1.72	70@75
1877	41,119	27,191	1.05@1.45	60@70
1878	43,508	33,778	85@1.05	40@65
1879	41,308	23,334	75@85	40@..
1880	37,614	34,776	75@1.00	40@58
1881	30,598	31,677	87@1.05	50@59
1882	29,884	23,371	1.05@1.15	57@60
1883	24,595	24,170	1.08@1.15	..@60
1884	22,099	24,670	87@1.05	55@63
1885	24,203	41,686	85@1.00	42@55
1886	23,312	27,249	67@85	36@48
1887	18,873	34,171	57@65	35@38
1888	16,265	17,185	55@62	37@40
1889	18,727	14,247	62@68	40@42
1890	14,440	17,565	58@65	42@50
1891	13,015	14,837	63@68	50@54
1892	12,944	13,382	63@65	50@53
1893	15,953	8,110	62@90	40@48
1894	16,333	9,720	56@62	38@43
1895	16,588	4,009	50@56	38@40
1896	15,124	4,800	35@45	30@35

The Petroleum Industry.

But little more than a decade had passed since the discovery of petroleum and its introduction as an article of commerce when the Oil, Paint and Drug Reporter was launched on the sea of journalism, then but sparsely occupied by journals exclusively representing trade interests. The publisher promptly recognized the importance of petroleum among the industries of this country, and this journal soon became the leading authority on the commercial features of this vast industry, a position which it has steadfastly maintained. During the decade preceding the appearance of the Reporter the development of the petroleum industry had been rapid, we may say phenomenal. The discovery of vast deposits of this commodity came at a time when the supply of lubricating and cheap illuminating material became a problem which caused earnest solicitude, and consequently its introduction was hailed as one of those wise provisions of nature designed for man's comfort and progress. The beginning of the quarter century found the world in the enjoyment of what was aptly called "the poor man's light," and of a quality unapproached by the materials formerly used by the masses. The degree of perfection since reached in its manufacture from the crude product was then only a dream of the future, to solve which chemists and others devoted their energies. Great strides have been made in the perfection of the products, and especially has this been the case with the lubricants, every requirement being now supplied from the unsightly and ill-smelling crude oil pumped from the bowels of the earth, from the limpid, stainless and colorless oil for delicate mechanisms to the semi-liquid lubricant required for axles and ponderous, slow-moving machines. The growth of this branch has been comparatively slow as compared with that of the more universally used illuminating oil, but its development has been of the utmost importance. New products, not suspected as being important components of crude petroleum, having been evolved as by a magician's wand, and it has been the beneficent genii of the present generation to direct us to the boundless resources which have done so much toward the development of the world's material interests. The vast resources were unsuspected a quarter of a century ago, at which time it was the general belief that the principal source of supply lay within the boundaries of the State of Pennsylvania, and at that time the possible early exhaustion of the supply agitated the minds of many. Expansion of the area was sought and found, and as the indications of possible supplies became better known, experimental borings were made in various parts of this country and in the countries of the Old World, the result being that important deposits have been discovered in Russia, Galicia and Roumania. The extension West is now only bounded by the Pacific Ocean, deposits having been found in Wyoming, Colorado and California. In South America supplies are being brought to the surface in Peru. And who can say where the limit shall be placed until the arth is thoroughly exploited and honeycombed with holes?

SOURCES AND PRODUCTION.

The production of petroleum during the year 1872 reached a total of 6,293,194 barrels of 42 gallons, all but 20,000 barrels of this being from Pennsylvania and New York. At this time excitement in what was known as the "oil regions," mainly Venango county, Pa., ran high, and fortunes were made and lost in the rganization of oil companies, the shares of which were readily foisted on a gullible public. If the promoters of such a company could show title to or lease of a plot of land not too remote from a producing well, the shares found a ready market, but it is safe to say not one in twenty of these companies completed a well. The business, however, gradually became a legitimate pursuit, the sharks being driven from the field, though not before many unscrupulous adventurers had grown rich on the credulity of the too trusting public, eager to secure a competence by "striking oil." Sections where oil was found were quickly populated by a horde of investors, gamblers, legitimate seekers for profitable investment, and the usual mixed crowd attracted by the promise of fortune easily secured. These settlements quickly assumed the appearance of a new mining town, having a mushroom growth, with few evidences of prospective stability, though in some instances pretentious structures were speedily erected and embryo cities laid out. Many of these have become important cities, while others, where the production of petroleum proved to be ephemeral, fell into decay and were abandoned, of which latter class Pithole is an example familiar to every one interested in the petroleum industry. The production, however, increased rapidly, reaching 10,900,945 barrels in 1874. About this time discoveries of petroleum were made in West Virginia and California, but the search for oil was not prosecuted with sufficient energy to make the production important. The growth of production in the States of Pennsylvania and New York was rapid during the ensuing eight years, reaching 30,184,500 barrels in 1882, but from that time came a decline, and there was a very general belief that the exhaustion of the supply was near at hand. The decrease was so rapid that the entire production in 1885 was but 20,867,041 barrels. At this time more attention was directed to Ohio as a possible source of future supplies, but the peculiar nature of the product of that State was then not understood, and it was contended that it could not be utilized for illuminating purposes, and its introduction as a cheap fuel for the generation of steam was advocated, and large quantities were soon so employed. Then came the discoveries of new fields, Cherry Grove coming at a time when the production was at a low ebb, and previous scenes of excitement were re-enacted. As the production again increased, more rapidly than did the requirements for consumption, the price receded, and the profits of the producer diminished to such an extent that a movement was set on foot to organize the producers, with a view to restricting the production. This proved successful, and in 1888 the total output of oil was only 16,608,116 barrels. During this year the production of the Ohio fields rose to a total of 10,010,868 barrels, and

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CHARLOTTE, NORTH CAROLINA, U. S. A.

various processes for refining the product were brought forward. This, in turn, stimulated the production in Ohio, which reached 17,740,301 barrels in 1891. The production in the older fields, after the end of the term of the "shutdown," again increased, and reached its highest point in 1891, when it amounted to 35,415,454 barrels, since which time it has varied several millions of barrels from year to year, though barely averaging 30,000,000 barrels. The production in Ohio, stimulated by improved processes for refining, reached 18,415,631 barrels in 1895. The other sections where petroleum had been found were being developed, especially since 1890, and in 1894 the production in California exceeded 700,000 barrels. The active development of the Indiana fields began in 1892, and the production during the next year reached a total of 2,335,203 barrels, and in 1894 3,688,666 barrels. The production in West Virginia, which became important in 1890, increased rapidly, exceeding 10,000,000 barrels in 1893. In Colorado the search for oil began in 1887, and during that year 76,000 barrels were brought to the surface, but, owing to the remoteness of these fields to the markets, the development has been slow, and, although the output reached 824,000 barrels in 1892, it has since averaged but little more than 500,000 barrels. While petroleum was known to exist in Kentucky for many years, it was found only in sections remote from transportation lines, and these fields have thus far been neglected, the annual production being less than 5,000 barrels. Illinois, Kansas, Texas and Missouri were added to the petroleum producing States in 1889 and the Indian Territory in 1891, but the quantity thus far produced has been unimportant, and has all been absorbed for local consumption. Wyoming came to the front as a producer in 1893, and the next year this young State was credited with a production of about 2,500 barrels. Petroleum has also been discovered in other States, even New England laying claim to supplies below its rocky surface. Excellent surface indications have been noted near the rivers Thames, Shetucket and Quinnebaug in the State of Connecticut, but, with the exception of digging a pit or two on the former river, no effort has ever been made to determine whether oil existed in paying quantities, although the oil found in the pits caused considerable excitement among the inhabitants of New London county, who expected an oil boom, and raised the price of land to extravagant figures, which probably at that time prevented a thorough test.

In other countries the existence of petroleum has been known for years, but efforts to secure the valuable product were not made until after the American product had been introduced and become a necessity in the countries which have since come to the front as producers, and now compete with this country in supplying the Old World. Russian oil was gathered in considerable quantities in a crude way by dipping from pits during the seventies, but it was not until 1881 that a systematic effort was made to develop the wonderful resources of the Baku region. In that year the Nobels secured a concession, but it was not until several years later that this wonderful field was developed and its enormous capacity determined, owing to difficulty in obtaining laborers and in storage and transportation, when finally the world was startled by reports of the enormous capacity of the wells, which in some instances amounted to thousands of barrels per hour, the flow flooding the surrounding country, destroying everything in the path of the flood. The production has since averaged about 800,000 tons, and in one year reached the enormous total of 1,000,000 tons. It may be needless to add that a considerable part of this deluge of oil went to waste by reason of inability to control and care for it. Other countries producing considerable quantities of petroleum, whose sources have been developed during the past fifteen years, are Roumania, Galicia, India, Austria, Sumatra and Japan. In South America Peru has come to the front during the past few years as a petroleum-producing country, and its production is said to be increasing at a rapid rate, although reports of the actual output are conflicting. To the north of us Canada has for more than a dozen years produced sufficient for home consumption. The production there has varied greatly, although the growth of the industry has been rapid. In 1884 the production amounted to but little more than 100,000 barrels, but was more than double that in 1887. Since that year the variation has had a wide range, though the production has probably never exceeded 1,000,000 barrels, and was a little more than 800,000 barrels in 1895.

CONSUMPTION.

The consumption of petroleum has been of rapid growth. Probably no other article has met with such popular favor and found its way into the households of the masses in so short a time. In 1872, only about a dozen years after its introduction as an illuminating oil, the consumption reached a total of fully 4,000,000 gallons, and although the production increased with rapid strides, it was not until 1878 that there was any important accumulation of surplus production. Early in the history of the industry markets were sought for the product in Europe, and the popularity of the new illuminating agent became almost as great in the Old World, the exports increasing at a rate entirely unexpected, as the fame of "the poor man's light" spread with unprecedented rapidity, and demand therefor soon came from every civilized country. Thus, in 1872 the exports of refined reached a total of upward of 118,000,000 gallons, and this was increased by 1881 to 444,000,000 gallons. During the next seven years the increase was not large, but refining plants were established in several countries, notably in France, and considerable quantities of crude oil were required, the exports in 1887 reaching a total of over 80,000,000 gallons. A further impetus was given foreign requirements in 1889, during which year the exports of refined amounted to 551,000,000 gallons, and of crude to 85,000,000 gallons. In 1893 the exports amounted to 642,000,000 gallons of refined and 111,700,000 gallons of crude, while in 1896 they reached the enormous total of 742,845,236 gallons refined and 115,681,761 gallons crude This is equivalent to 26,336,716 barrels crude. This gives a fair idea of the increase in the consumption of American petroleum abroad, though not of the total foreign consumption, as the Russian production became an important factor in the world's supply about ten years ago, and some of the countries formerly supplied with the American product have taken the Russian oil by reason of its lower cost and proximity of the source of supply, although the American product is given the preference by reason of superiority in quality. The consumption in the countries of Central and South America, has been of comparatively slow growth, although the exports during the past year to that section of the world exceeded 20,000,000 gallons of refined. It is more difficult to give the actual consumption in the United States, as the production of crude is not all utilized for refining, and the amount used for fuel purposes is not definitely known, but it is about equal to the amount exported; so that, roughly, it may be said one-half of the illuminating oil produced is used here.

MARKET VALUES.

The price of crude petroleum has varied greatly from time to time, being influenced at times by speculative operations on the several exchanges, and at others by the discovery of new fields and consequent increased production and also when the output showed a decline and the stocks were diminishing. These were the potent factors affecting market values, and as it would be wearisome to the reader to follow these in detail and be of no special interest we will not enumerate the various changes, but refer the reader to the tabulated statistics, to be found on another page of this issue of the Reporter. During January, 1872, the price of crude at the wells averaged above 74 and some sales were reported at $4.25 per barrel. The decline during this year was not important, as the average price for the year was $3.64. The decline during the next year was rapid, however, and in December of 1873 sales were made below $1, the lowest authenticated sale being at 85 cents. During the next year there was further depression in price, and 50 cents was reached in November of that year. Following this, there was a steady advance, and in January, 1877, sales were made at $3.65, only to again decline and fall below $1 in the July following. During the suceeding years the fluctuations were not extreme, and instead of a reduction to $1 being the point of solicitude to the producer thereafter this proved to be the goal he sought, and hoped to attain for his product, although there were times when this was considerably exceeded, notably in 1883 and 1884, when new development operations were restricted by agreement of the producer. Another memorable period of extreme variations in price was in 1895, when the price advanced, at first gradually, but during April by jumps, which the brokers could scarcely keep track of, and on the 17th of that month sales were made at $2.70. From this time on there was a decrease, as the high prices naturally stimulated production, as has already been shown, and before the close of 1896 the price had again dropped below $1, the closing price of the year being 90 cents. The prices of the products have kept pace with the downward trend of crude, and refined has varied from time to time in an approximate ratio with the, at times, violent fluctuations, but the other products, as naphthas and lubricating oils, have been affected by other influences, mainly by supply and demand, though the course of prices of the latter have been downward, irrespective of the variation in production or the price of crude. The lighter products of distillation were early regarded as by-products of little commercial value, and were allowed to run to waste, though later their value was recognized as mediums for the generation of heat under the stills, and large quantities were so used. The price, however, gradually advanced until it became recognized as one of the more valuable products, and during the past few years it has sold at a price several cents higher than has been realized for ordinary grades of refined. Residuum is another product which at one time was regarded as a by-product of no value, and in some refineries was utilized under the stills.

THE PRODUCTS.

Only the more important products need be considered, those actively dealt in and having important uses. First among these is, of course, the illuminating oil. Twenty-five years ago what is now known as standard white was the best produced, although the fire tests ranged as they now do, and the lower tests, although relatively much cheaper, found little favor with those who desired a safe, brilliant light. Processes for the improvement of the burning oils were being perfected, and the 150 degree water-white oil of to-day shows a long stride in advance over the best oil produced in 1871. Although Ohio oil became prominent in 1885, it was some years before it was extensively used for the manufacture of illuminating oil, by reason of the sulphur it contains, and which it was found difficult to eliminate. The ingenuity of the modern chemist and investigator proved equal to the occasion, however, and some six years ago the oil was placed on the market, sometimes mixed with the Pennsylvania product; but it was not until 1894 that the refined was accepted as equal to that of the standard, and the official acknowledgement of its equal merit as an illuminating oil quickly followed, the refined being now a good delivery the same as if made from Pennsylvania crude. The products next in importance are the lubricating oils. These have steadily decreased in price, and they have as steadily been improved in quality. A quarter of a century ago there were not more than three distinct kinds, the paraffine, neutral and black, though the latter found little favor and were not sold under that name. The development of the mineral lubricating oil industry has been steady, and as new classes of oils were introduced for special purposes and the older ones greatly improved their use increased, the public being prompt to acknowledge the superiority of these oils. Mineral lubricants are now produced adapted to all kinds of lubrication, from the finest, fast-running machinery to ponderous, slow-moving wheels, and wherever friction is to be overcome. Oils are now produced that remain limpid at very low temperatures, and others which are safe at temperatures which would destroy oils of animal or vegetable origin. Naphthas, from the ordinary benzine to the lighter grades known as gasolines, have had a marvelous development, second only to the illuminating oils. The uses to which the various grades are adapted are so varied that practically the entire production finds a prompt outlet at remunerative figures. Another of the products of which little was known twenty-five years ago is paraffine wax. The use of this article was at first confined to candles and as a substitute for beeswax, but with the development of electricity this interesting product was found practically indispensible and vast quantities are required in all parts of the world, the exports alone now approximating 100,000,000 pounds Vaseline, or petroleum jelly, was introduced into the market in 1871, was discovered by Mr. Robert A. Chesebrough of this city in 1869, and a patent issued therefor in 1872. This article has also had a phenomenal growth, although the public was at first slow to understand and appreciate its wonderful merits. A variety of uses not at first contemplated have been found for it, and enormous quantities are consumed annually.

TRANSPORTATION.

Early in the history of the petroleum industry this proved a most perplexing problem, but it was one the growing necessities of which brought its own solution. From barrels on wagons and in cars to the tank car was a natural step, and the conveyance of the oil from the wells to storage tanks in the fields by means of pipes suggested the pipe lines; but these have also undergone wonderful development, with their pumping stations to overcome elevations and the friction incident to flows over long distances. The boiler-iron cylinder car was introduced in 1871, taking the place of wooden tanks like huge tubs placed on flat cars, and holding from 2,000 to 3,000 gallons to a car, while the modern tank holds from 4,500 to 5,000 gallons or more. But transporting in tank cars was inadequate, and, although short lines delivering oil by gravity were in use for some years, the construction of pipe lines with pumping stations came later, owing to the opposition of various interests and the earlier failure to overcome defects in construction. The main lines, or trunk lines, became an important factor in the petroleum business in the early 70's, and in a very short time after their practicability was demonstrated lines were extended to Pittsburgh, Cleveland, Buffalo, New York, Elizabethport, N. J. and other points. These lines transport the crude oil from the producing regions to the cities and seaboard, where refineries are located, under high pressure, being across valleys, over hills and under rivers, through cities and towns, and one line crosses the upper part of the city of New York under the streets and the East River to the refineries on the Long Island shore. Much opposition was at first shown to the laying of pipes in populous districts, but owing to their thorough construction they have been proven to be far less dangerous than are the gas mains which are found in every town of any pretensions. The problem of transportation on land was thus early solved, although improvements in the details have been made during the past few years, but the shipment of oil to foreign countries presented apparently greater obstacles. The export trade developed rapidly, as has already been shown, and although there was for a long time an impression among shipmasters that a petroleum cargo was extra hazardous, the carrying of this product was profitable. Shippers, however, sought cheaper modes of transportation, and the idea of dividing the hold of a vessel into oil-tight compartments and shipping in bulk suggested itself, but the earlier attempts proved disastrous, and bulk shipments received a setback. During the time shipments were made entirely in barrels or cases there were large accumulations of barrels in foreign countries, principally in England and on the continent of Europe, and these were returned to be refilled, vessels with entire cargoes of empties returning as regularly as the filled retainers went abroad. This was an expense in freight, and depreciation of value that both the sellers and buyers of oil desired to avoid, and efforts to overcome the dangers and difficulties of shipment in bulk were not relaxed. As the tare on the barrels represented about 16 per cent. of the cargo, a vessel which could carry 6,000 barrels showed a waste of 1,000 barrels, the importance of avoiding this is apparent. It was not until 1876 that cylindrical tanks were employed in vessels for bulk shipment. In that year Mr. L. V. Sone secured a patent for "improvements in vessels for transporting liquid cargoes in bulk," and he fitted up a vessel, the wooden bark Crusader, of 643 tons. His system proved successful, and the growth of shipments in bulk may be said to date from that experiment, although other cargoes had been shipped in bulk. The fleet of tank vessels grew in numbers, and modifications of Mr. Sone's patent were adopted as experience and the construction of the vessels suggested. The tank steamer was the next step, and as the fleet increased the return of barrels from Europe ceased, until now empty barrels are, from time to time, exported to supply proper containers as the old become worn out or are destroyed. The first tank steamer built by the Russians for carrying oil in bulk was in 1879, and nearly the entire oil-carrying trade of that country is now in tank vessels. The entire bulk-carrying fleet of the world is now not far from 500 vessels, of which about 350 are sailing vessels. Shipments in tin cases are made mainly to far Eastern ports, the same as they were, owing to convenience of handling and desirable

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Confectioners & Bakers TOOLS AND SUPPLIES.

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Nov 21st., 1896.

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Production of Petroleum.

Following is the yearly production of crude petroleum in the United States; the quantities being in barrels of 42 gallons:—

Year.	Pennsylvania.*	Ohio.	All Others.	Total.
1872..	6,273,194	20,000	.....	6,293,194
1873..	9,873,786	20,000	.....	9,893,786
1874..	10,900,945	26,000	.....	10,926,945
1875..	11,487,514	30,000	45,000	11,662,514
1876..	9,088,906	31,763	12,000	9,132,669
1877..	13,307,475	29,888	13,000	13,350,363
1878..	15,343,462	38,179	15,227	15,396,868
1879..	19,865,176	29,112	19,858	19,914,146
1880..	26,206,631	38,940	40,552	26,286,123
1881..	27,527,509	33,867	99,862	27,661,238
1882..	30,181,500	39,761	289,569	30,510,830
1883..	23,254,389	47,632	129,612	23,449,633
1884..	23,862,209	90,081	266,148	24,218,438
1885..	20,867,041	650,000	330,164	21,847,205
1886..	25,900,000	1,782,970	381,871	28,064,841
1887..	22,501,193	5,018,015	759,658	28,278,866
1888..	16,608,116	10,010,868	994,041	27,612,025
1889..	22,031,548	12,471,466	660,499	35,163,513
1890..	28,950,786	16,124,656	747,230	45,822,672
1891..	35,415,454	17,740,301	1,136,225	54,291,980
1892..	32,232,463	16,362,921	1,913,752	50,509,136
1893..	28,759,925	16,249,769	3,402,972	48,412,666
1894..	27,597,624	16,792,154	4,954,748	49,344,516
1895..	30,406,693	18,415,631	5,864,876	54,687,200
1896..	33,455,571	23,311,853	†7,000,000	63,767,424

*Including New York and West Virginia.
†Estimated.

Petroleum Wells Completed.

The total number of petroleum wells completed in each year since 1872, in the States of Pennsylvania, New York, Ohio and West Virginia, were as follows:—

Year.	Completed.	Year.	Completed.
1872	1,183	1886	2,478
1873	1,263	1887	1,660
1874	1,317	1888	1,515
1875	2,398	1889	5,435
1876	2,920	1890	6,358
1877	3,929	1891	3,361
1878	3,064	1892	1,892
1879	3,048	1893	1,700
1880	4,217	1894	3,548
1881	3,880	1895	6,676
1882	3,304	1896	12,270
1883	2,847		
1884	2,265	Total, 25 years.	84,196
1885	2,761		

Stocks of Crude Petroleum.

In the following table are given the stocks of crude petroleum at the beginning of each quarter:

Year.	Jan. 1.	April 1.	July 1.	Oct. 1.
1872..	532,000	662,497	1,010,302	951,410
1873..	1,084,423	1,244,657	1,324,493	1,521,185
1874..	1,625,157	2,648,210	2,701,625	2,758,504
1875..	3,705,639	4,592,364	4,502,896	3,812,945
1876..	3,672,077	3,753,513	4,847,301	3,011,004
1877..	2,816,870	3,394,011	3,046,389	2,549,460
1878..	3,086,972	4,218,518	4,983,145	4,653,525
1879..	4,506,492	6,234,842	7,104,347	7,403,752
1880..	8,552,256	9,834,457	12,720,220	15,249,661
1881..	17,145,104	20,048,772	23,192,207	25,052,082
1882..	25,761,051	27,255,326	29,402,854	32,066,007
1883..	34,335,144	35,594,680	35,985,935	35,752,718
1884..	35,715,565	36,206,626	38,665,848	38,740,722
1885..	36,872,892	36,067,905	35,103,277	34,087,938
1886..	33,539,038	32,710,560	32,872,309	*33,797,908
1887..	33,475,316	32,925,274	33,701,784	33,922,679
1888..	32,505,577	30,516,480	30,764,515	29,985,077
1889..	28,415,188	29,444,166	27,592,107	26,749,855
1890..	25,009,942	14,703,894	24,725,685	29,638,629
1891..	30,266,909	32,107,215	33,956,493	34,984,940
1892..	37,457,938	37,662,578	37,945,788	37,994,995
1893..	35,999,831	34,394,961	33,213,192	33,320,632
1894..	30,608,523	29,648,761	29,184,670	28,599,744
1895..	26,495,043	24,305,009	24,244,018	25,988,322
1896..	26,036,753	27,492,797	30,295,560	31,818,386

*Stocks of Ohio oil are included from this date.

Monthly Average Price of Crude Petroleum.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1872..	4.02½	3.80	3.72½	3.52½	3.80	3.85	3.80	3.58½	3.25	3.15	3.83½	3.32½	3.64
1873..	2.60	2.20	2.12½	2.30	2.47½	2.22½	2.00	1.42½	1.15	1.20	1.25	1.00	1.83
1874..	1.20	1.40	1.60	1.90	1.62½	1.32½	1.02½	.95	.95	.85	.55	.61¼	1.17
1875..	1.03	1.52½	1.75	1.36½	1.40	1.26½	1.09	1.13	1.33	1.32½	1.44	1.55	1.35
1876..	1.80	2.60	2.01	2.02½	1.90½	2.01⅝	2.24½	2.71⅞	3.81	3.37½	3.11	3.73	2.56¼
1877..	3.53¼	2.70	2.76½	2.58	2.24	1.94⅝	2.07½	2.51	2.38	2.56¾	1.91	1.80	2.42
1878..	1.43	1.65⅛	1.59	1.37½	1.35⅛	1.14	.98⅜	1.01	.86⅜	.82½	.89⅜	1.16	1.19
1879..	1.03	.98	.86¼	.78½	.76	.68⅜	.69⅞	.67½	.69⅜	.88⅛	1.05⅝	1.18 1-3	.85⅞
1880..	1.10¼	1.03½	.88⅜	.78	.80	1.00	1.06¼	.91	.96	.96⅞	.91⅞	.91⅝	.94½
1881..	.95½	.90⅝	.83⅜	.86¼	.81⅞	.81¼	.76⅛	.78½	.97½	.91¼	.85¼	.84⅜	.85⅝
1882..	.83⅛	.84½	.81⅜	.78⅜	.71½	.64⅜	.67⅜	.68⅜	.72½	.93⅜	1.14	.96	.78⅛
1883..	.93⅜	1.01	.97⅝	.94⅜	1.00½	1.16⅜	1.05⅞	1.08	1.12½	1.11½	1.14½	1.14¾	1.05⅝
1884..	1.11	1.04⅜	.98⅛	.94	.85⅝	.69⅜	.63½	.81⅞	.78	.71½	.72½	.74⅜	.83⅛
1885..	.70⅞	.72⅜	.80⅜	.78½	.79	.82	.92½	1.00¼	1.00⅜	1.05½	1.04⅜	.89⅜	.87⅜
1886..	.88⅜	.79⅝	.77¼	.74⅛	.70	.66½	.66	.62⅛	.63⅜	.65½	.71⅝	.70⅜	.71¼
1887..	.70	.64⅜	.63⅜	.64⅛	.64½	.62⅜	.59¼	.60¼	.67	.70⅞	.73⅝	.80⅜	.66⅜
1888..	.91¼	.91⅝	.95⅜	.82⅜	.80⅜	.75⅞	.80⅝	.90⅛	.93⅝	.90⅝	.85⅝	.89¼	.87⅜
1889..	.86⅝	.89¼	.90⅞	.88	.83⅛	.83⅞	.95⅛	.99½	.99½	1.01⅜	1.08½	1.04 1-3	.94⅛
1890..	1.05⅜	1.05⅛	.90	.82⅝	.88⅛	.89¼	.89⅛	.89¼	.81⅞	.80⅛	.72⅜	.67¼	.86⅝
1891..	.74⅛	.78⅜	.74¼	.71½	.69¼	.68⅛	.66½	.64	.58½	.60½	.58⅝	.59⅜	.67
1892..	.62⅜	.60¼	.57⅜	.57⅞	.57⅜	.54⅛	.52½	.55	.54⅜	.51⅜	.52	.53¼	.55⅝
1893..	.53½	.57⅜	.65¼	.68⅜	.58⅜	.60¼	.57⅜	.58⅞	.64⅜	.70⅜	.73⅝	.78⅛	.64
1894..	.79⅜	.80⅜	.82	.84⅛	.86	.89⅜	.83⅛	.81	.83	.83	.83	.91½	.83⅞
1895..	.99	1.04⅜	1.09⅜	1.19	1.74¼	1.53⅜	1.40⅜	1.26 1-6	1.22⅝	1.24¼	1.48⅝	1.42	1.35⅞
1896..	1.45⅝	1.39	1.34½	1.22⅜	1.18⅝	1.14⅜	1.09⅛	1.05	1.12⅜	1.15⅛	1.15½	.97⅛	1.19

Total Exports of Petroleum.

The following table shows the exports of crude and the various products, in gallons:

Year.*	Crude.	Naphthas.	Refined	Lubricating.	Residuum.
1872	16,363,975	8,688,257	118,290,832	438,426	566,218
1873	19,643,740	10,250,497	207,595,988	1,502,503	1,377,180
1874	14,430,851	10,616,644	206,562,977	993,068	2,504,628
1875	16,536,800	14,048,726	208,678,748	938,062	2,323,986
1876	25,343,271	13,252,451	220,831,608	1,157,929	2,863,596
1877	28,773,233	19,565,909	307,373,842	1,914,129	4,256,112
1878	24,049,004	13,431,782	306,212,506	2,525,545	3,126,816
1879	28,601,550	19,524,582	365,597,467	3,168,561	4,827,522
1880	36,748,116	15,115,131	280,131,557	5,607,009	3,177,630
1881	40,430,108	20,055,116	444,666,615	5,053,862	3,756,018
1882	45,011,154	16,969,839	428,424,581	8,821,536	4,265,352
1883	59,018,537	17,365,314	440,150,660	10,108,394	6,502,524
1884	79,679,395	13,576,421	433,851,275	11,985,219	5,303,298
1885	81,435,609	14,739,469	445,880,518	12,978,955	5,713,908
1886	76,346,480	14,474,951	485,120,680	13,948,367	1,993,824
1887	80,650,286	12,382,213	485,242,107	20,582,613	2,989,098
1888	77,549,452	13,481,706	455,045,784	24,510,437	1,870,596
1889	85,189,658	13,984,407	551,769,666	27,903,267	1,858,458
1890	96,572,625	12,462,636	550,873,438	32,000,537	1,830,612
1891	96,722,807	11,424,993	531,445,099	33,310,264	1,002,414
1892	104,397,107	16,393,284	589,418,185	34,026,855	403,032
1893	111,703,508	17,304,005	642,239,816	32,432,857	541,044
1894	121,926,349	15,555,754	730,368,626	40,190,577	211,008
1895	115,954,128	12,757,940	677,500,647	46,769,565	143,850
1896	115,681,761	12,958,357	742,845,236	50,250,645	553,300

*Fiscal years, ending June 30.

Cottonseed Oil Trade.

With a crop in 1870-71 of about 3,000,000 gallons, the following season opened with crude cottonseed oil in the 40s. The quotations given in the first issue of the Oil, Paint and Drug Reporter, on Oct. 18, 1871, being 45c. At the same time summer yellow was 53c., and from this point on to the close of the year there was a steady advance, crude reaching 52½c. in November and 55c. in December, while summer yellow maintained a distance of 6c. or 7c. a gallon above the crude article, which was the rule under ordinary conditions at that time, and closed the year at 61c. Although the crush of that season was not a heavy one, still, the supply of oil was rather in excess of the demand, and early in January prices were off 1c. per gallon, both on crude and refined, from the closing figures of the previous year. From this point the market declined steadily to 47½c. for crude in February and 55c. for refined, working gradually down until at the close of the crop year in August the crude had got down to 45c.

The crop proved to be smaller than that of the previous year, aggregating about 2,250,000 gallons. The receipts of seed were fully equal to requirements, and the oil market in December was down to 42½c. for crude and 49c. for summer yellow. There was very little change from this point on until May, when a better demand set in, and, with stocks pretty well in hand, the market took an upward turn, reaching 47½c. for crude and 55c. for summer yellow in June and closing the crop year at 50@56c. respectively on a crop of 2,300,000 gallons. Summer yellow reached 58c. in September, but following this there was a break, and the close of the calendar year was at 40c. for crude and 48c. for refined. A steady market followed up to February, 1874, with an advance of 47½c. for crude and 55c. for refined, which by May had reached 55@60c. respectively. Crude was out of market from this time on until the new crop, and there was little variation in price, excepting as the small receipts of crude from old seed late in the season were sold at between 45c. and 50c. There was a break on refined in September, before the arrivals of new oil had begun, and the close of the season was at about 52c. for summer yellow. The crop of 1873-74 proved to be about 3,000,000 gallons. Our reports for that year show the arrivals of new oil to have been late, and the new crop opened at 46c. for crude and about 55c. for summer yellow, December closing with these figures asked. Crude held along at about 45c. to 46c. during the early months of 1875, with summer yellow ranging from 52c. to 55c., but in March stocks became exhausted and prices ran up to 60@55c. for crude, with summer yellow at 68@70c., and considerable importations of the latter from Liverpool. A falling off in the demand and an increase in stock by the late crush led to a decline in prices early in the summer, with quotations ranging in July down to 45c. for crude and 55c. for refined.

The market stiffened up somewhat before the arrival of new crop, the first lots of the latter selling at 50c. for crude, with summer yellow at about 60c. The crop for the year was about 3,500,000 gallons. Eighteen hundred and seventy-six opened with crude at about 52½c., but sagged slowly during the spring months, reaching 40c. for crude and 50c. for summer yellow in May. There was no recovery from these figures, summer yellow touching 47½c. in August, while crude broke to 38c., the lowest point of the year, in November; the crop for the year 1875-76 having proved the largest on record and reaching 5,250,000 gallons. In spite of this fact prices opened up rather firm at 40c. and 50c. in January, 1877, subsequently advancing to 48c. and 55c., but easing off as the season advanced, with sales in March at 40c. for crude and 48c. for summer yellow. From this point there was a recovery, and in May crude was up to 47½c. and yellow to 55c. The latter, however, eased off during the summer months, sales being made in the neighborhood of 50c., while crude from the late crush was down to 42½@45c. for prime, the crop year closing at about 47½@55c. respectively. The crop for the year 1876-77 was 4,500,000. New oil was a little late in arriving, and 1878 opened with a firm market at 50c. for crude and 58c. for refined, followed before the close of the month by a drop of 4c. on the former and 7c. on the latter, and a further decline extending through the year, with only periodical reaction under temporary scarcity of stock. The crop year closed with summer yellow at 40c., the production for the year having been about 6,700,000 gallons, with a considerable increase in the number of mills and every prospect for a large crop for the ensuing year. This was realized, and as early as December crude had declined to 33c., with summer yellow at 41c., the latter opening the following year at 40c. In spite of the full crop, however, the tendency of prices during the remainder of that year was rather favorable to the crushers, and the highest point of the year was reached in November, when crude was at 41 and summer yellow at 47c., although the crop had opened in September at 33c. and 42c. The outturn for the year had been 7,800,000 gallons. Under the pressure of liberal receipts and the prospects of another large crop the market sagged gradually throughout the spring and summer months of 1880, crude touching as low as 30c. in May, but recovering slightly and closing in August at 33c., with summer yellow at 40c. on a crop of 10,000,000 gallons. The opening of the following crop year was a little less favorable for the heavy production, but the market was a pretty steady one throughout the year, excepting for temporary fluctuations due to momentary increase of demand or short supply, the prices gradually working up almost without interruption to 45c. in August for summer yellow and 48c. in December. As had been expected, the crop proved to be about 2,000,000 gallons short of that of the preceding year.

From that point on the growth of the cottonseed industry has been constant and rapid, and the means which we formerly took to secure by direct returns from the crushers themselves the statistics of production ceased to be practical, for the reason that new elements had been introduced into the business, which it was impossible for us to reach in the same confidential manner that we were formerly able to employ. The records of the market for 1882, however, show crude to have opened at 42½c. in January and sold down to 37c. in February, from which point there was a steady, though gradual, rise until the highest point of the year was reached, in August, when the crop was closed out at 50c., summer yellow at the same time being 60c. With the incoming of the new crop, however, there was a gradual yielding of prices, and at the close of the year summer yellow had touched 47c. The year 1883 opened with crude at 37½c. and summer yellow 45½c., and there was a gradual gain from this point until April, when the refined product stood at 48c., that being the highest price attained that year. Crude did not begin to sag off until midsummer, and closed the year at 36c., but gained about 4c. before the beginning of 1884, summer yellow meanwhile having advanced to 45c., after having touched the lowest point of the year, 43c., in October. The tendency of prices during 1884 was rather downward, the organization of the Cotton Oil Trust having begun that year, with other conditions which were not altogether favorable to a high market. The fluctuations on refined were not wide but were all in one direction, the year closing at 40c. for summer yellow, with crude at about 34c., and these figures marked the opening of 1885, when the effect of the organization of the trust was more apparent in what was regarded as a determined effort to bring in such of the outsiders as had held out up to that time, by making the business unprofitable for them. A very full crop aided this effort, and the course of the market was steadily downward throughout the year, 26c. for crude and 32c. for summer yellow being reached in December.

A more complete organization having been effected, and trade conditions somewhat improved, the tendency of the market during the following year was rather better, although the highest point of the year on summer yellow was not reached until the close of the crop year, when it sold at 40c., crude getting up to 33c. From this point on the tendency of prices was rather downward, and continued in this direction through the early months of 1887, with a revival at the beginning of the summer to 35c. for crude and 42½c. for summer yellow, the highest point of the year being reached in October, when summer yellow sold up to 45@46c. The following months of the year were rather less favorable for refined, although crude held its own remarkably well, touching 36c. in January, but dropping to 33½c. in April, at which time summer yellow was selling at 39½c. From this point both products steadily appreciated in value to the end of the crop year, at which time summer yellow was selling at 52c., although crude had fallen back somewhat from the high point reached in June, at which time it sold at 43c.; later on, however, both advanced, and the year closed with crude at 45c. and summer yellow at 55c. January, 1889, opened even above these figures, but before the close of that month the market had begun to sag, and continued steadily downward through the year, the lowest point being reached in December, when crude sold at 27c. and summer yellow at 33c. These were the opening prices of the ensuing year, but there was an early improvement, and crude had gained 5c. and summer yellow 3c. before the close of April, while the ensuing month marked a further improvement. In September previous to the arrival of new oil in any quantity crude sold at 28c., and summer yellow at 34c., and these prices were pretty well sustained during the remainder of the calendar year, on strictly prime oils, with an advance occurring during the early months of 1891, which brought summer yellow up to 40c. in June, that being the highest point of the year. There was very little interruption to the downward trend of the market from that time on, and in December crude had reached 25c., with summer yellow at 28½c. These were the opening prices of 1892, and about the lowest of the year, although crude was shaded somewhat luring the spring months. Refined, however advanced almost constantly, and wound up the year at 46½c., by which time crude had reached 43c. There was a further advance in February of 1893, which brought crude to 57c. and summer yellow to 63c., these being the highest figures of the year, although the following month showed a good average. The lowest point of the year was, however, reached in December, when crude had touched 27c. and refined 34c., but with a better feeling manifest before the year closed; 1894, however, saw no high prices, the top figures being reached in the opening month, while, with the opening of the crop year in October, by which time the arrivals became somewhat free, the market had dropped to 24c. for crude and 28c. for summer yellow. This point was passed during the dullness which marked the opening of the ensuing year, with sales of crude down to 22c. during the early months, which was followed later on by a rise to 24c. on crude and 28c. on the yellow. These were the highest prices of the crop year, but soon after the incoming of new oil there was somewhat of an improvement, due largely to the influence of a prospective reduction in the supply, and there were sales up to 30c. for summer yellow, and 26c. for crude,

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The unsatisfactory features of 1896 are still familiar to everybody in the business, the course of the market having been persistently downward, chiefly under the depressing influences of lard and the other greases. The opening at 24c. for crude and 28c. for summer yellow was passed once during the month of January by an advance of ½c., but from this point the decline was almost uninterrupted during the year, the lowest point being reached in July, when crude sold at 19c. and summer yellow at 23c., the highest point reached during the closing months of the year was 2½c. above these figures, with the tendency of the market at the close unsatisfactory, and in spite of great development in a far less promising position when it was at the period at which this review opens.

The annual production of cottonseed oil for several years past has been upward of forty million gallons per annum, the crop of 1892-1893 being estimated at forty-four million, while that of 1894-1895 was upward of fifty million gallons and that of 1895-1896 was nearly up to that amount; in other words, in less than twenty years the production has increased twentyfold. There has, of course, been a corresponding increase in the output of cake, but the demand for it has kept pace with the production, and it brings relatively better prices to-day than does the oil; in fact, the value of the cake is far better appreciated now than it was twenty years ago, and as a stock food it has taken a place in advance of the older linseed product. Cottonseed cake was not quoted with any regularity in this market until about 1877, and late in that year we find it selling at $25 a ton here, city linseed cake being worth at the same time $35@36, and Western $34.50@35. From that time on, however, the difference in price between the two products gradually narrowed.

The Linseed Oil Market.

As will be noted in our table of quotations, printed elsewhere, oil from American flaxseed was not enough of a regular commodity in this market to be distinguished in our quotations until 1881. Previous to that time there was a distinction frequently made between imported and domestic oil, but the latter was always from Calcutta seed. The straggling lots of Western oil appearing in this market before the year named were not of enough consequence to merit regular quotation. The price of city oil from imported seed, given in the first issue of the Reporter, in October, 1871, was 80c., although in December of that year it had declined to 73c. In 1872 the market advanced from 74c. at the opening of the year to 86c. in February, after which it declined a little although at no time touching the opening figures, and later on advanced until the year closed at 90c. This rise continued steadily through the early months of 1873, the highest point of the year being reached in April, when oil sold at $1. A decline ensued during the summer months, and the lowest point of the year, 83c., was reached in November. The highest figures in 1874 were 97c. in January, but by midsummer the market was down to 85c., and in September had declined 10c. further. There was not much variation from this point up to the opening of the following year, which was at 77c., and the course of the market from this point on was almost steadily downward, 56c. being reached in October. After this there was a partial recovery, so that 1876 opened at 62c., with a fairly steady market for the next two months, followed by a decline, which culminated at 52c. in August, and from this point on the market gradually improved, the year closing at 64c. The first four months of 1877 showed a steady market in the neighborhood of 65c., with a decline in May to 60c., the lowest point of the year being reached in July, when the price was 55c. After the midsummer dullness had disappeared there was a slight improvement, and the year closed at about 60c. As high as 63c. was reached in January of the following year, but that was the top figure of the year, the lowest being 57c. in August, and the more active trade in the fall and winter months bringing the price back again to about 60c. The advanced cost of seed made 1879 a rather conspicuous year, the market at no time going below 60c., and the tendency for the most part being steadily upward until 82c. was reached in November, with prices ranging between that and 80c. until April of the following year. During that month there was a break of 77c, which marked the beginning of a steadily downward tendency, that left the market at 55c. in August, there being meanwhile more competition from American seed, and the following year the latter product had become so important as to merit steady recognition in the quotation. The difference at that time between oil from domestic and imported seed was about 5c. a gallon, and the highest price reached by the former was 65c. in November, the latter then being at 70c. Western oil was, however, quoted in this market at as much as 10c. per gallon below the price of city domestic, and there was one time during the year, late in the fall, when a scarcity of city oil reduced the margin between city domestic and Calcutta to about 2c. per gallon. Later on, however, the difference widened to about 5c., and that was maintained during the greater part of the ensuing year, when the course of the market was almost steadily downward, the lowest point being reached in December, when Calcutta was selling at 57c. and city domestic at about 53c. The difference in price during the late months of that year having been considerably reduced. In 1883 the fluctuations were neither wide nor violent, the lowest price of the year being at the opening, from which point Calcutta advanced to 60c. in April, and ruled at about 58c. to 60c. during the remainder of the year, while domestic was, for the most part, about 57c. The two oils opened at 57c. and 58c., respectively in 1884, and kept within two or three cents a gallon of one another during the year, Calcutta closing at 52c. in December. In the early months of the following year the two oils sold on a level basis, and the highest point for either was reached in April, when they were both at 52c. From this point there was a decline, domestic being at 44c. in November, while Calcutta did not go below 48c. The extreme fluctuation of the following year did not exceed 5c. a gallon on domestic, while the range on Calcutta was between 49c. and 51c. The lowest point on domestic was reached in July, when it was quoted at 39c., although it advanced to 41c. before the close of the year, Calcutta meanwhile being at 51c., and these figures remained in effect until March, 1887, when Calcutta touched 55c., with a further advance of 1c. in June, and never varying far from this point during the remainder of the year, with domestic two or three cents a gallon below it. In 1888 the two oils hung very close together, and fluctuated between 55c. and 60c., while 1889 showed a still narrower range of quotation, domestic being between 58c. and 60c. the entire year, and Calcutta reaching 62c. in December. There was a little improvement in the early part of 1890, and in March of that year the two products stood at 62c. and 64c., respectively, with Calcutta advancing to 65c. in the fall, and drawing away from domestic, which closed the year at 58c. In 1891 the difference widened again, owing to cheap domestic seed, and the competition of Western oil and domestic ran down to 37c. in October, while Calcutta did not get below 56c. In 1892 58c. was the highest point for Calcutta, which price was steadily maintained almost throughout the year, while domestic advanced gradually up to 48c. in December, 1893, opening with the two oils 10c. apart, and in March of that year the difference between them wsa 12c., Calcutta at that time being 62c., at which it remained throughout the year. The opening quotations in January, 1894, were 47c. for domestic and 62c. for Calcutta, but the distance between them was soon narrowed, Calcutta declining and domestic advancing until at the close of the year they were about on a level of 56c. During the first half of 1895 the two products ranged between 56c. and 59c., but later there was an easier market, and domestic began to draw away again from Calcutta, closing at 42c., with the latter at 50c. During 1896 domestic seed had so overwhelmingly the control of the market, and at such reduced prices, that the difference between this oil and the small amount made from Calcutta seed became wider than ever before known, being at times over 20c. per gallon. The range on Calcutta during the year was from 50c. to 52c., while domestic ran from 42c. down to 31c. The difference between the price of city and Western domestic oil has been steadily diminishing since the latter first appeared in the market. For a number of years very little attention was paid to the competition by city crushers, but later they found themselves obliged to recognize 5c. per gallon as the limit of difference which they could afford to stand, and this was subsequently reduced and stood for a number of years at 2c., finally, in 1896, being brought down to 1c., at which it still remains.

Quinine and Cinchona Bark.

Beyond question, the most interesting article in the entire list of drugs during the period we are reviewing is quinine, and, coupled with it, cinchona bark. In fact, we believe that few if any articles in other branches of trade and commerce have witnessed such a radical change in all the conditions governing it as quinine. When the Reporter first saw the light of day, in October, 1871, Powers & Weightman were quoting $2.50 per ounce, but were not delivering any, and a small lot of 200 ounces was secured from a dealer at $2.25½. In those days the makers in this country were Powers & Weightman, Charles T. White & Sons and Rosengarten & Sons. Pelletier's had a strong hold on the affections of the people of the Southwest. The alkaloid was protected by a duty of 45 per cent., which was reduced to 20 per cent. in the tariff of August, 1872. The bark came from South America, where it grew wild, and Ceylon was coming to the front as a purveyor of the cultivated cinchona. In the summer of 1872 chills and yellow fever raged, and with yellow fever a possibility the demand for the alkaloid manifested itself earlier than usual. Speculators were, as usual, not slow to take advantage of the opportunity to control the market for their profit, and a large speculation was brought into being, which carried the price up to $3.15 by the latter part of September, and transferred about all of the supply to one party. Naturally the time came to unload, and in a week from the date of the highest point recorded the price dropped to $2.70. The latter part of the year there was an explosion in the New York office of Powers & Weightman, then as now, in Maiden lane. It was caused by gas in the front basement, and did considerable damage, but fortunately the personnel of the office was spared for many years of usefulness.

In the winter of 1872-1873 a proposal to naturalize the cinchona plant of Peru and South America in the Southwestern States was put on foot, and at that time it gave promise of being successful. The fathers of the scheme relied for its success on the high prices of quinine in New York and throughout the country generally, which had ruled during the preceding year, as well as the nominally high rate for the drug the world over, the increasing consumption at home for febrile and tonic uses, as well as the demand from abroad and from malarious districts. Some of the foremost medical and scientific men in this country were promoters of the scheme, and they determined to try to induce Congress to set apart a suitable portion of the public domain. They felt certain of the success of the scheme, owing to the successful cultivation and naturalization of the plant in British India by the East India Company in 1861. One of the first attempts at the cultivation and transplanting of the cinchona took place under the auspices of the Dutch, who chose Java as the spot on which to make the trial, only to meet with failure in a commercial sense, entirely owing to the inferior descriptions of trees procured, which were naturally deficient in the quinine principle.

In our issue of Feb.19, 1873, we published an extract from the British Trade Journal, referring to the report of the Superintendent of State Plantations in Southern India, in which he informed the Government that large harvests of the bark might then be reckoned on, and advised the sending home of not less than 25,000 pounds of bark, to be sold by public auction with a view to test its quality and market value. Many persons then predicted a deterioration in the trees if they were stripped of their bark. The closing paragraph was somewhat prophetic in that it said: "Probably at no very distant date the valuable alkaloids found in cinchona bark will be extracted at the producing grounds."

In April, 1873, the Cassina, from Liverpool to Philadelphia, was lost, with 500 seroons of Peruvian bark, valued at $35,000. The fluctuations in 1873 were between $2.45 and $2.55, in 1874 between $2.20 and $2.50, and in 1875 between $2.15 and $2.30. Oct. 7 of this year Powers & Weightman issued the following characteristic circular: "We find that the impression has gone abroad that manufacturers are unable to supply the demand for sulphate of quinea, and wish to say to our friends that we have filled and are continuing to fill all contracts punctually, and all legitimate orders promptly, but have avoided selling to speculators. The pure remains at $2.30 v. l. for parcels of 100 ounces or more." In 1876 the fluctuations were between $2.20 and $2.70, and the market was strong all the year, with an upward tendency, based on the advance in bark. In August all of Pelletier's on the spot was sold at $2.35 and upward. A bill was introduced in Congress reducing the duty to 10 per cent., but it failed. In 1877 the price advanced from $2.70 to $4.50 on high-cost bark, and the attitude of the makers, who withdrew from the market in the spring, leaving the field to the dealers. It was understood that they took this course to introduce the other salts of cinchona, of which they had accumulated a large stock. They succeeded in placing these before the public, especially cinchonidia. The year of 1878 was one of considerable excitement. The stock of bark ran low, and reports were circulated early that little would come forward. In March manufacturers were quoting $2.90, but declined to sell spot parcels or to contract to deliver in any reasonable time. Small lots of 100 ounces or thereabouts were sold by dealers from $4.50 to $5.25. These high figures soon attracted attention in the interior, and in April the price commenced to sag, buyers having made themselves scarce on the receipt of offers from the West to sell at $4. In May $3.25 would buy. Manufacturers raised the nominal prices to $3.80 in August, and dealers asked $5, but by the end of September there was a full supply, the American makers being willing sellers at $3.80 and the French at $3.50. Cinchonidia at this period was selling at 80@85c.

The year 1879 marked the beginning of a new era. The price commenced to go down, owing to a steady increase in the production of Ceylon cultivated barks, and from this time on the decline was gradual, the market often being under speculative control, a condition of affairs made possible by the removal of the duty of 20 per cent., which occurred the latter part of June. This was a political move, and was the culmination of an intense agitation that had been waged in and out of Congress for several months. The bill was passed in the closing hours of the session under suspension of the rules and without debate. The late Mr. J. S. Moore, sometimes styled the "Parsee Merchant," who posed as a tariff expert, and to whom the columns of at least one of the New York daily papers were always open, was the most vehement in support of the measure and in condemning the American manufacturers for resisting the abolition of what he was pleased to call a "blood tax." The animus underlying the agitation was apparent when it was proposed to make quinine free and leave the crude article, cinchona bark, on the dutiable list, in company with the other salts of the bark.

When the duty was 20 per cent. the market was practically under the control of the American makers, and had been up to that time. The new conditions made it possible for speculative cliques to manipulate prices, and from this time forward real stability to values became a memory. At the first sign of danger, however, the American makers determined to keep the price down to the lowest point possible, and to deliver sparingly on their contracts, in order that the stocks in the hands of the trade might be as light as it was possible to have them. Dealers made sales at $4.10 in a small way, but this policy of makers had the desired effect. However, as soon as "free quinine" became an accomplished fact speculators took hold, and bought liberally abroad, forcing the price of foreign up 12 per cent. and domestic 3 per cent. An advancing bark market also helped the manipulators, the net rise in bark having been 8 per cent. There was some quinine in bond when the act received the President's signature, which, the Secretary of the Treasury decided should pay duty or be exported. Some 30,000 ounces were shipped abroad.

The New York Sun published the following poem on the "emancipation" (?) of that portion of the human race domiciled in this country:

Rejoicings ring throughout the land,
  Quinine is free! Quinine is free!
Its bonds are burst, its shackles fall,
Send the glad news to one and all,
Through shanty, tenement and hall—
  Quinine is free! Quinine is free!

Malaria flies in wild alarm,
  Quinine is free! Quinine is free!
And fever hides her burning head,
And ague totters off in dread—
Economy quinine had wed!
  Quinine is free! Quinine is free!

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Highest Award, Medal and Diploma at the Columbian Exposition Chicago, ***for High Gravity and Freedom from Impurities.***

Higherst Award, Gold Medal, Cotton States and International Exposition, Atlanta, Ga., 1895, ***for High Specific Gravity and Purity.***

Medal of Honor and Diploma of Merit awarded by the U. S. Centennial Commission, Philadelphia, 1876, ***for Purity in Quality, Elegance of Appearance and High Specific Gravity of Glycerin.***

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GLYCERIN FOR ALL PURPOSES,

CINCINNATI, O.

THE W. J. M. GORDON WOOD ALCOHOL & CHEMICAL CO.

CRUDE AND REFINED WOOD ALCOHOL,

Principal Office, Cincinnati, O. ***ROUND MOUNTAIN, ALA.***

Up goes the price of Jersey lots.
Quinine is free! Quinine is free!
The red feet may be happy yet;
Elizabeth her villas let,
And Rahway even pay her debt.
Quinine is free! Quinine is free!

All Staten Island, Flushing, hail!
Quinine is free! Quinine is free!
Newark, Montrose and Hackensack,
Hoboken, Haverstraw and back.
Hail! every place on every track.
Quinine is free! Quinine is free!

Now all one saves in Jersey rents—
Quinine is free! Quinine is free!
In dollars, dimes, in cents and mills,
Won't go to pay the doctors' bills,
Or druggists' for Peruvian pills.
Quinine is free! Quinine is free!

Hope dawns again upon our land.
Quinine is free! Quinine is free!
All joyful shout from near and far,
"Hail, quinine, sugar-coated star."
And ague trills "Hurrah! Hur-r-r-rah!"
Quinine is free! Quinine is free!

The price did not hold for long, as natural conditions soon asserted themselves, and values began to decline, notwithstanding a demand from Russia for several hundred thousand ounces. The market drifted below the parity of bark both here and abroad. Estimates were then published in which the claim was made that, with the average price of bark for a series of years, taken in connection with the relations of demand to supply, $2.50 would be the lowest cost of foreign brands. In November $2.80 was reached, and in December $2.60.

With the removal of the duty the German brands commenced to come in, and at first they were sold at 40c. below the price of American, but as their quality improved the difference in the price was reduced somewhat. They found a ready sale, and had such an influence on the market that during the first six months after their advent the American makers produced less than one-quarter what they did during the same period in previous years, the deficit in their product having been actually more than equal to the large increase in the importation of foreign brands. It was said that only one maker out of four, and he a small one, ran his works nearly up to his capacity.

Cinchonidia had been increasing in usefulness. In 1878 the consumption amounted to about 300,000 ounces, while in 1879 nearly 400,000 ounces were used. This had some effect on quinine, and was in some measure responsible for the decline in the price of the latter. When first put on the market cinchonidia was sold at $1.75 in May, 1877. In November $1.50 was quoted. In January, 1879, it had dropped to 90c., but from this it steadily advanced to $1.15 in February, with large sales, and to $1.25@1.40 in March. In October there was a drop of 15c., and the year closed at 95c. Powers & Weightman during the year placed on the market cinchona alkaloid and mixture, in postal packages, 5 ounces of alkaloid, or 16 ounces of mixture, at $2 each, post paid.

The year 1880 was characterized by a rapid advance in the early part from $3 to $3.40, based on a higher bark market, and an active demand. The South American and some of the East Indian barks became poorer in quality. Speculation played a part in the manipulation of values, but the market could not be sustained, and the year closed at $2.60. There was considerable agitation for the reimposition of a duty, and the manufacturers made an appeal to Congress, including in their petition, one from a large number of wholesale druggists, reciting the stability to prices which had prevailed before the introduction of the German alkaloid. Nothing came of the effort, as the influences against the duty were too powerful. It was the "blood tax" all over again, and that cry "took" with the National Legislature. A large increase in the demand for pills was noticed, and as the manufacturers purchased their quinine on a chemical test, regardless of the brand, the sale of the cheaper foreign makes increased very largely. Domestic brands were invariably used in the dispensing of the alkaloid in powder form, owing to the more sightly appearance of the crystals.

The year 1881 opened with all conditions favoring a low price throughout the entire year. The stock of quinine in the bark in London was nearly three times what it was at the same time the year previous, and it increased steadily. The cultivated bark from the East had never been so rich in quinine, and new fields of a higher percentage bark had been discovered in South America. Under these circumstances the domestic manufacturers expected to be called upon to compete with the lowest cost foreign since the duty was removed. The Milan factory appeared to hold the key to the market, for bulk quinine, from the manufacturers' standpoint, owing to its size and facilities, which enabled it to produce one-quarter of the world's consumption. In the face of these adverse conditions, speculators for a rise were undaunted, and with large purchases here and cables to London to purchase everything obtainable in that market at the prevailing price, for American account, the price in six weeks, was rushed up 65c., but the market was too top heavy to be sustained, and a decline set in which was steadily maintained until $1.85 was touched in October by domestic, and $1.55 by German. Then speculators secured control, basing their operations on the low price, and persistently refusing to recognize the handwriting on the wall, which indicated a steadily increasing supply of rich yielding barks from the East.

In December a syndicate of bark producers was reported to have made contracts with the foreign quinine makers, who were said to have agreed to take a certain quantity of barks, and thus bolster up the market. The probable early exhaustion of the Cuprea bark supply helped the manipulation, and with these dual influences at work the price advanced to $2.50 for domestic and $2.20 for German. The events of the year were a fire in the B. & S. factory in August, which consumed $50,000 worth of bark and compelled the cancellation of all of their contracts, and rumors that the three B. & S. factories intended to consolidate.

At the meeting of the Western Wholesale Druggists' Association, held in Cincinnati in November, a resolution was adopted to the effect that a 10 per cent. duty should be placed on quinine, and that the salts should bear the same duty. Later in the month, at a tariff convention held in New York, the Industrial League adopted resolutions favoring the restitution of the duty. Throughout the entire year the holders of bark were firm, in spite of the conditions which obtained at the beginning of the year and the large arrivals from new fields in South America and the East during the year. They estimated that two years would elapse before the East Indies could be depended on for large stocks. The demand in 1881 increased 25 per cent. over 1880, and the domestic production exceeded 1,000,000 ounces. The production of the other makers was given as follows:

	Ounces.
Howard	350,000
Whiffen	122,000
Jobst	315,000
B. & S. Mannheim	315,000
Brunswick	210,000
Zimsmier	210,000
F. Koch Oppenheim	52,000
Pelletin	140,000
Trillardieo	140,000
Schissmann	35,000
Dufour Fratilli (Genoa)	105,000
Lombard, Milan	1,400,000

The capital stock of the last-named was $800,000.

The year 1882 was characterized by a tariff discussion, which brought out views from all sides, and resulted in a controversy between Mr. J. S. Moore and Dr. R. V. Mattison. Mr. Geo. D. Rosengarten, then in his 82d year, also lent a hand. He said that with a duty of 20 per cent. for a number of years, it was rarely, if ever, added to the cost of making the alkaloid here, and the price was, on the average, only 10@15 per cent. over that of the foreign article, which difference was necessitated by the greater cost of the raw material to the domestic makers, their higher rate of wages, superior plant, and other items. All of this was changed by the repeal of the duty, said he, the manufacture now being carried on at a loss on the present cost of bark in the United States, and, beyond a doubt, in Europe. He alluded to the fact that the abolition of the duty caused the South American shippers of bark to consign their supplies to London instead of New York, as they were afraid the American factories would close. This added to the cost of the bark to the American makers and caused the failure of several New York importing houses. Then, too, the heavy arrivals of these South American barks in London caused a serious decline in the price, which compelled the domestic makers who had purchased bark in London on contract to lose 20@30 per cent. McKesson & Robbins asked the Tariff Commission for a duty of 10 per cent., and the Chas. T. White Company for one of 15 per cent.

In July a combination between the bark owners and the quinine producers was consummated, more binding than anything that had preceded it, and the price advanced from $2 to $2.20. Zimmer's factory was reported to have swapped quinine to the syndicate for bark. The increased shipments and the manifest tendency of values were, however, too much for the operators, and the price dropped to $1.55 for German and $1.80 for domestic, early in November, the year closing at $1.50 for German and $1.70 for domestic. The combination had proved a failure.

In the year 1883 the controversy over the effect of the removal of the duty on the domestic industry was kept up in the daily press. This year was a memorable one on account of the formation of a quinine syndicate that embraced all of the European manufacturers. It was perfected in June, with the avowed purpose of discouraging speculation and distributing the alkaloid through new channels. Mr. Alexander Boehringer of Milan arrived here in that month, which confirmed the reports that had been in circulation. The makers had become discouraged at the outlook, the price of foreign brands in America for several months having been below the European market, and they had become tired of using this market for a dumping ground. With the formation of the syndicate some one evolved an idea which, when it assumed definite shape, looked something like this: "With all alkaloids free, and with a combination on quinine, the plan of manufacturing quinine in the districts where the bark is grown has been made more practicable." A factory in the United States of Columbia shipped to New York two cases weighing 4,800 ounces, in October, which later turned out to be of a dark reddish color, not dissimilar to the uncrystallized extract of the bark which was obtained in the initial processes in manufacture of its alkaloids. This lot contained about 10 per cent. of quinine.

The Treasury Department decided that cinchonidia was free, in spite of the plain wording of several paragraphs of the act of 1883. The intent of Congress was taken into consideration. The year closed with all of the manufacturers in the combination, and it was understood that they would buy all lots of foreign that were obtainable up to $1.65. The year closed at $1.75. Cinchonidia dropped during the year from 95c. in January to 75c. in December.

Early in the year 1884 Stallman & Fulton became agents for Zimmer's brand, which was put out in an entirely new dress. On Feb. 28 occurred the fire in Powers & Weightman's factory, which started in the bark grinding department. The damage amounted to $300,000, and affected the quinine factory, the bark mill and the opium and morphine warehouses. Mr. Alexander Boehringer had just arrived from Europe, and been taken off on a tug in the lower bay, by his friends, so that his presence here might not be generally known. He went direct to Philadelphia and offered the use of the Milan factory to Powers & Weightman, pending the rebuilding of the works. His offer was accepted, and in March Dr. John F. Weightman sailed for Europe to perfect arangements for placing goods on the market as soon as possible. In the summer the Milan factory failed, with liabilities of 18,086,043 francs, and assets of 12,617,489 francs. The capital of 6,000,000 francs had disappeared. As to the course of the market, there was a decline of about 50 per cent. in the price from Jan. 1 to Dec. 31. Domestic opened at $1.75 and closed at 98c. German closed at 93c., having opened at $1.70. The domestic makers forced the price down in the autumn, and a small lot of German was sold at 80c. They made very little alkaloid, however, as the increased cultivation of bark at low prices had made it incumbent upon them to not only increase the use of the other alkaloids, but to improve the processes, the better to enable them to meet the altered conditions.

Interesting statistics of the exports of bark from India were published, showing an increase from 26,992 pounds in 1875-76 to 641,608 pounds in 1882-83, in addition to 350,000 pounds which the Bengal Government used in the latter period. The Java crop increased from 200,000 pounds in 1878 to 904,970 pounds in 1882. Ceylon began to export in 1869. The increase was from 28 ounces to 6,925,595 pounds in 1882-83, and for the season of 1883-84 the estimates were 11,500,000 pounds. The shipments had already largely outstripped the estimates for the past few years, all of which shows that the operators had been kicking against pricks that they knew not of, in their many endeavors to bolster up prices wherever they thought the price of the alkaloid lower than the bark situation warranted. In order to help out the planters, the Ceylon Observer proposed that efforts be made to introduce quinine into China as a substitute for opium and for consumption by horses and cattle.

During 1885, the market continued its downward course, owing to an ever increasing supply of bark. Domestic opened at 98c. and closed at 73c., while German started at 93c. and closed at 70c. Cinchonidia began at 33c. and closed at 14c., owing to an ever-increasing stock and the low price for quinine. In October 260,000 ounces were sold here at 10½@12c. on speculation. Veterinary surgeons commenced to use it in horse epidemics.

In February Mr. J. Hasslacher in a circular called attention to the growing prominence of the Amsterdam bark market, and the very valuable barks from Java that were sold there. The market was disturbed by the presence of a considerable quantity of stock from the Milan factory, which was held by banks. In April the New York Quinine & Chemical Works placed their brand on the market, they having purchased the C. T. White Company's property in Brooklyn in December, 1884. They commenced business with Alexander Boehringer and a corps of assistants from the defunct Milan factory. The lowest price on record was touched in July, when 68c. was accepted for 100 oz. cans. The German brands were fighting for the privilege of being recognized as selling at 5c. below the price of P. & W.'s, but the latter were unwilling to recognize this difference. It was hinted that some of the domestic makers found it cheaper to bottle foreign quinine than manufacture. Antipyrene was placed on this market during the summer. Predictions of dollar quinine before the end of the year were freely indulged in, owing to temporary advances in the price of bark and a rapid decline in bark stocks at the source of supply.

The year 1886 witnessed a decline of 20c., from 73c. to 53c. Amsterdam loomed up as a bark market, the Netherland Minister of the Colonies having been memorialized to establish an auction every six weeks, or eight a year. The planters, however, appeared to favor London, on account of the high prices obtained and the quick settlements. The director of the Java cinchona plantations predicted that the exports of bark from Ceylon in 1886 would be less than in 1885. He was ridiculed by the wiseacres. He also predicted an increase in the shipments from Java and South India. A domestic manufacturer declared that a year hence there would be no foreign quinine in this market. Mr. C. T. White, in an interview, said that he had ceased to manufacture quinine in 1883, when the new process was introduced. Once, said he, 2 per cent. was a high grade bark, and 1@1½ per cent. was the average yield of quinine, but 3@4 per cent. was now the average from the cultivated barks. The new process reduced the time and expense of extracting the alkaloid, by improved apparatus and a better solvent.

Dr. Cresswell Hewett in September created some excitement in London and elsewhere by claiming to have discovered artificial quinine, to cost 1d. per ounce. Mr. Howard soon exposed the fraud.

Hewett made a sale presumably for the purpose of proving his claim, to interest capital, and an investigation revealed the fact that he had purchased and supplied the genuine article, mixed with other impurities and foreign matter usually found in sulphate of quinine.

Prof. Fisher of Munich obtained from tar a special "carbore" in the form of a white crystalline powder, possessing all of the therapeutic properties of quinine.

In June the price touched 50c. The bark shipments fell off early in the year, but largely increased in the summer, the receipts in London showing an admixture of roots, which was taken as an indication that the planter desired to substitute tea and coffee for cinchona. Cinchonidia dropped from 14c. to 8c., owing to a large increase in the supply and a decrease in the demand. The yield from the Ceylon barks was five times the consumption. An exceptional sale was reported of 20,000 ounces at 4c. per ounce.

Early in 1887 the Ceylon planters proposed a bark syndicate. With quinine at 3d. per unit and shipments the past two seasons excessive, they had tired of kicking against the pricks. Cinchona extract was shipped from Java to Amsterdam. The Amsterdam works were sold at £8,500 in the spring and reorganized in the summer at a capitalization of £21,000. The year was characterized by considerable speculation. The opening price was 53c. Bears

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depressed the market to 49c., when a boom set in, based on an increase in the consumption of 20 per cent. over the previous year. American makers had for several months bid up the price of bark at the London auctions, and secured about all that was offered. But when they stopped buying, the price declined, and the German makers secured cheaper bark. The importations began to increase and the domestic production to grow, hence the strain was too great for the speculators, who in March began to unload. Clerks, truckmen, etc., all commenced to unload, and the price tumbled. In August second hands sold foreign at 38c. In November the stock here was estimated at 700,000 ounces, abroad at 1,000,000 ounces, with the bark representing 3,740,000 ounces of quinine, enough for a consumption of eleven months. Toward the end of the year people began to talk of a combination. Keasby & Mattison issued a circular, in which they stated that quinine could, and would, be sold at 25c. at a profit, and that Java barks would make this possible. Cinchonidia dropped to 21c. as the demand decreased, while the inquiry for quinine increased. Just as the year closed there was a report in circulation that the coffee syndicate had taken hold of quinine. Bark had advanced 100 per cent. in one month.

The year 1888 marked a continuation of the decline which had been going on for several years. Speculation had encouraged production far beyond the possible requirements of consumers, hence the stock of quinine here was about 1,000,000 ounces above the wants of consumers. The bark shipments continued to increase, especially from Java, while those from Ceylon gave promise of an early failure, as the planters had decided to put in no new plants and were turning their attention to the cultivation of tea and coffee. Reports were put in circulation that Java would flood the market this year and the following year with high test bark, but a thorough investigation failed to substantiate this report. The coffee syndicate above alluded to failed to accomplish its object, as the conditions were too many for it. The opening price for the year was 49c. for American and 44c. for German. By July 1 American had reached 43c. and German 32c. The year closed with American at 40c .and German at 30c. During the year the value of quinine in the bark in London declined from 2¼d. to 1¾d., or 22 per cent., and the price of German quinine in bulk from second hands to 1s. 9d. to 1s. 3½d., or 26 per cent.

The year 1889 opened with reports of the formation of a combination of the manufacturers. Altogether about five meetings were held, but nothing came of it at that time, owing to the jealousy that existed between two of the leading concerns. The market was characterized by considerable speculation during the year, and the foreign article continued to be dumped on these shores in ever increasing quantities.

The imports for four years had exceeded the consumption by several hundred thousand ounces annually. A sale of 100,000 ounces of American quinine from second hands was made in February at 27@28c. The consumption of quinine continued on the increase, in spite of the presence of the febrifuges which had commenced to gain prominence. The market had become so demoralized that German brands in March were sold at 25c., with offers to sell as far ahead as September at this price. The latter part of June there was a sale of 200,000 ounces at 21@23c. This marked the turning point, and the market showed some improvement, assisted by a little London speculation. The July London bark auction was the largest in many months, but the bark market was top heavy, and the price paid was the same as at the previous sale. There was an improvement at the August sale, the advance having been about 20 per cent., equal to 5 cents per ounce on quinine. There was a large business transacted, and an advance of about 30 per cent. in the price of quinine. In October 30 cents was once more quoted by second hands, a price that was a year before considered low, the market in the meantime having been as low as 21c. Baron Von Rosenberg, a large cinchona planter in India, proposed to form a syndicate of Ceylon planters. The plan was to receive, press and store bark at Colombo until shipment; to make advances to growers of 50 per cent. of the Colombo value on ascertained analysis, storage charges to be free four months, after which the rent would be moderate until the date of shipment. Interest was to be at the rate of 8 per cent. During the year a controversy was waged in and out of the trade press as to the cost of making quinine. It was stated that, with two or three exceptions, all the makers had been losing money for a year and a half. One authority stated that much depended on good management and the location of the factory. He said the cost was in excess of the then market price, and gave the following example to show the cost at that time: With the price of bark in London at 1½d. per unit, the bark testing 3 per cent. quinine at 48 ounces per hundredweight, the cost of quinine on the docks in London in bark would be 18.7 cents per ounce; add to this the cost of bringing the bark from London, which was 11c., would make the cost of quinine per ounce delivered in New York 29.7 cents. During the year cinchonidia was sold at 2c. per ounce, an article that at one time had been sold at $1.10 per ounce. The Ceylon barks had yielded larger quantities than those from South America, hence with a declining market for quinine the value of cinchonidia was bound to decrease. The year 1890 opened with quite a boom. American was quoted at 35c. and German at 29c. The influenza swept the entire country and created such a demand for quinine that the surplus here was entirely wiped out, leaving the trade to depend on the stocks of manufacturers and the surplus abroad. The market was stronger than it had been in three or four years. The boom was of short duration, however, as dealers purchased heavily in Europe and imported large quantities, 1,000,000 ounces in the first three months, which broke the price to 31c. for American and 28c. for German. With a weak bark market the good effects produced by la grippe were soon counteracted, and the influence was felt on the alkaloid. German had dropped to 25½c. by July 1. In the month of December large sales were made at 22@23½c., the year closing at 25c. for American and 24c. for German. An attempt was made to form a combination to regulate prices and production, and several meetings were held in Paris and London, but nothing came of it, as the maker of the Brunswick brand refused to become a party to any such arrangement, he maintaining that the price of bark was bound to decline steadily. As if to bear out his contention the price of quinine in the bark at the London sales declined about 30 per cent. in the first six months of 1891. As indicating the rise and threatened fall of Ceylon as a producer of bark, the following table is instructive:

SHIPMENTS OF BARK FROM CEYLON.

Year.	Pounds.	Year.	Pounds.
1880	1,151,102	1886	14,838,402
1881	1,329,454	1887	11,996,039
1882	4,402,901	1888	13,251,120
1883	7,296,671	1889	9,317,211
1884	11,923,190	1890	8,640,144
1885	14,097,142		

During the year 1891 the price declined to 24c. for American and 17½c. for German. Artificial quinine was discovered by Grimaux and Arnaud in Paris from cuprenie. This discovery came five years too late, as cuprea bark, as a member of the materia medica, was practically dead. With the season which commenced July 1 Java commenced taking precedence over Ceylon in the export of bark. In the year which closed June 30 Ceylon had exported 6,900,000 pounds, against 6,000,000 pounds from Java, but the latter was ahead of the former on account of the richer yield of the Java bark. The Java planters put forth the most fantastic proposition, perhaps, that ever emanated from any body of men interested in the quinine or bark industry. They proposed that the bark should be sold only to the quinine makers of Europe, the latter to turn over to a European syndicate, representing the planters, all of the sulphate of quinine, leaving the by-product for the makers to sell; this quinine syndicate was to have an agent in every country in the world, he to control provincial agents, who, where the law allowed, were to sell quinine and its preparations direct to the public, and where the law did not permit retailers were to be used as middle men. The profits from these sales were to be divided among the planters in the ratio of the quinine value of their bark. On rumors of a European combination of the quinine makers, there were heavy transactions here the last week of the year on a larger scale than at any time in the entire year.

Apparently the Java planters did not tire trying to improve their position, as they formed a syndicate early in 1892, to which 500,000 florins was contributed which was to be used to bolster up the bark market at the auctions. They succeeded in bidding up the price, but it appears that the higher bark went the lower quinine went, as there seemed to be no prospect of a combination of the manufacturers being formed. Furthermore, the Baring failure had compelled the throwing on the market of a large lot, which had a depressing effect. Holders of stock, however, lived on hope until the middle of March, when they gave up and were sellers at 18c. for German, but buyers would not pay over 17c. The market had reached 21c. the latter part of January. Mr. Anton Kessler of Java at this time prophesied that Java bark, which was then yielding 4 to 4½ per cent. of quinine, would double some years hence, owing to the efforts of the planters to cultivate high-class bark.

Perhaps the feature of the year was the organization in London of two companies to control the world's output of cinchona bark. The first was called the Trading Founders, Limited, to obtain offers, to hold goods for six months after receipt, from all cinchona planters in the world of the entire quantity of bark already taken off the trees or still on the wood, for a period of three years. The other was the Cinchona Association, Limited, to acquire and work the rights secured by the Trading Founders, Limited, for the benefit of cinchona planters and dealers. Early in August the price of German had reached 16c., while American was quoted at 20c. The year closed much stronger, with 18½c. quoted for German, and the stocks well concentrated.

The year 1893 was characterized by the formation of a combination of the manufacturers throughout the world. The first intimation that the trade had of such an agreement was an advance in the price March 18 to 20c. for German and N. Y. Q. and 22c. for P. & W. and R. & S., with a refusal to sell to any but regular dealers and consumers, and to these not beyond sixty days' requirements on contracts. The manufacturers determined to pursue such a course as would ultimately place this alkaloid outside of the pale of speculative operations. They hoped in time to see all of the outside lots absorbed by consumers, and when that time was reached they would be absolute masters of the situation. The formation of this combination was soon felt in the bark market, as they practically fixed the prices they would pay for bark by not bidding against each other. The "outside" market was steady at 19½ cents when the combination was formed, but it weakened gradually, owing to the financial disturbance, which had commenced to be felt. There was a recovery to 19½ cents in September, as the financial atmosphere had cleared somewhat, but nothing of any consequence transpired until Dec. 18, when manufacturers advanced their prices 2½ cents on German and N. Y. Q., and 3 cents on P. & W. and R. & S., the year closing with the market firm, outside holders quoting 22@22½ cents.

The latter part of January, 1894, another advance was recorded of 2½ cents, making the price, according to brand, 25@27½ cents. Second hands raised their limits to 23½ cents, and later to 23¾@24¼. The market dragged along throughout the year, and a number of lots of very old were sold as low as 22 cents cash. Early in the year 1895 manufacturers, with a view possibly of preventing American dealers from buying in London, advanced the European price to 28 cents, without making any change here. In July of that year there was another proposition to form a combination of Java planters. The plan was for the manufacturers to buy bark for five years and pay 6 Dutch cents per unit per half kilo of bark, and allow the planters one-half of the profits on all sales of sulphate of quinine above 24 florins per kilo, which was equal to about 28 cents per ounce. The planters were required to agree not to supply more than one-half of 235,000 kilos of quinine in the bark, which was the estimated annual consumption of the world. Nothing came of this scheme however. In September there was a big speculation in London, and lots were exported from here to that market, as there was a small margin of profit at a cost to the exporter of 24½ cents net cash. There was considerable talk of a factory being established in Java, and a new factory in London created a small stir. On the 18th of December manufacturers again advanced their prices from 25 to 28 cents for German and N. Y. Q., and from 27½ to 30 cents for P. & W. and R. & S. Second hands followed suit, and quoted within a cent to a cent and a half of manufacturers' prices. The year just closed witnessed a complete collapse of the market, in spite of which the agreement between the manufacturers remained unbroken. While Ceylon had become of little or no account as a producer of bark, the exports from Java had increased enormously, and manufacturers found that they could not take all that was offered. They therefore allowed the market to take its course, with the result that the lowest price on record was reached during the year. European competition was threatened, and with a promise of the early operation of the Java factory, they determined to reduce the price of the alkaloid as a measure of self-protection. As indicating the view of the situation which was held by dealers, large sales were made at 25 cents in July from second hands. The first official drop was announced Aug. 17. It amounted to 3 cents, which brought the price down to 25@27 cents, according to brand. A week later there was a further drop of 3 cents, and on Nov. 2 the price was still further reduced, this time 4 cents, making it 18@20 cents. Second-hand holders were completely demoralized at each successive drop, but they followed the market in its downward course. There are several holders of quinine who purchased large quantities of it on speculation at prices ranging from $1.50 down to about 30 cents, and many of them still hold their stocks, in the hope that some day or other conditions will improve to such an extent that they may be able to dispose of them, if not at a profit, at a smaller loss than they would be compelled to submit to if they sold at the price at the close of the year.

The Story of Opium.

Opium has always been a speculative article, hence the law of supply and demand has not always been operative. The fluctuations in the price have, therefore, often been the result of manipulation, but invariably this has been based on favorable conditions. In the past 25 years at least two speculative movements stand out in bold relief. We refer to the attempt in the year 1880 to control the markets of the world, which emanated from this city, and which proved a disastrous failure to the manipulators, and to the movement in the winter of 1894, when the Wilson Tariff bill was under discussion, when there appeared to be some liklihood of a duty of $1 per pound being placed on the drug. In 1868 sales were made at $22 per lb. in currency, equal to $14.50 in bond, with a duty of $2.50. In 1869 $12.50 gold in bond was paid; in 1870, $8.37½; in 1871, as high as $6.37½, but when the first copy of The Oil, Paint and Drug Reporter was issued, Oct. 18, 1871, opium was selling in bond at $3.95 per pound in gold. Shortly after that one of the speculations with which the history of opium is so replete, commenced, and by March, 1872, the bond gold price had been forced up to $5. The market price reached $5.75 in bond by March, 1873, under speculative manipulation, the bulls and the bears having had control at times, and, in spite of a crop of 8,000 baskets in 1871-1872.

In the early part of 1872, certain experiments were made in California, looking to the cultivation of the poppy, and they proved successful beyond the expectations of the promotors. Later on the cultivation was practically abandoned, as conditions appear to have changed.

Shortly after the highest figure recorded above, the price commenced to sag as soon as the speculative support was removed, and in two weeks reached $5 gold in bond. Early in June the market reacted to $5.25, and by the middle of the month was up to $5.75, on news from Turkey of a favorable character to holders. In a few days $6.12½@6.25 was reached, and here the market remained until near the end of 1873, when $5.75@6 gold in bond was touched. The market began to sag off early in 1874, but soon recovered to $5.75. The middle of April the market rapidly advanced to $6.50 on report of a 1,000-case crop, and on continued news of an unfavorable character, $8.12½@8.25 gold in bond was reached the middle of June. In a few weeks there was the usual weakness which follows a rapid advance, and the price dropped from $8 to $7.25 the middle of July. From this to the end of the year the fluctuations were between $7.50 and $6.75. The highest price was reached Aug. 1, after which there was a steady decline to $6.75, then a recovery to $7.50 Oct. 1, which price held with slight and unimportant fluctuations until the end of 1874, when $6.87½ was touched.

The year 1875 the price showed a very decided downward tendency, which set in very strongly in June, as soon as reports of a large crop had been received. The year opened at $6.75 gold, in bond, which proved to be the highest point during 1875. There was a gradual decline to $6, the latter part of February, a recovery to $6.50

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two weeks later, then a gradual decline to $5.75 early in May. The latter part of June the price dropped $1 per pound, on crop news, to $4.75, then to $4 Aug. 1, which was low-water mark for 1875. The fluctuations to Dec. 31 were between this and $4.50, closing at $4.25. In 1876 the fluctuations were between $3.75 and $5.62½, the lowest price having been reached early in May, after which there was a gradual recovery until the close of the year, based on favorable news from Smyrna. The year 1877 witnessed one of the speculative movements for which this drug is famous. The opening price was $5.50 gold, in bond. There was a gradual decline up to April, owing to a quiet market, and the price reached $4.62½. The latter part of April the upward movement commenced, based on news of the Russo-Turkish war, and the trade all over this country became possesed of the idea that the market was slipping away from them. In one week the price jumped from $4.62½ to $7 in bond, with heavy purchases for consumption and sales and resales of large lots. The following week, with the stimulus removed, the price dropped $1 per pound, to $6 gold, in bond. Then the lots which had been sold to arrive in bond, at less money, began pressing for sale, and $4.75 was the bond price in another week. With abundant supplies coming forward, there was a gradual decline down to the third week in October, when $3.75 gold, in bond, was touched. Influenced by advices of Chinese purchases in Turkey, owing to the partial failure of the Chinese crop, the price reacted to $4 a week later, but dropped to $3.87½ in a few days and steadily declined to $3.70, which was reached the middle of December, and was the closing price of the year. At this the market was firm, however, owing to the receipt of further reports of purchases to supply the deficiency in China. The crop for 1876-1877 was reported as 7,800 cases. The year 1878 opened at $3.70, but under the influence of a large crop the previous year, and liberal stocks at all centers, the price steadily declined, to $3.62½ by Feb. 1. Early in May $3.50 was reached, and the first week in June, $3.37½ gold, in bond, was touched. Estimates of a 6,000-case crop, coupled with a continuation of large supplies at the distributing points, was the cause. By Aug. 1 the estimates for the new crop had been reduced to 5,000 cases, and the market responded by advancing to $3.50. During the balance of the year, crop news had more influence on the market than anything else. The middle of October $5.35 became the established quotation, but in two weeks there was an advance to $3.45, and Dec. 1, to $3.75, owing to damage to the plants. The year closed at this figure, but weak. The following year opened at $3.62½ in bond, with a downward tendency. In February the price stiffened to $3.45 and remained at this up to the close of April, when $3.55 was recorded, and this was the price at the close of June, although $3.62½ was touched in May, owing to unfavorable news from Smyrna as to the new crop. July 1 witnessed an advance to $3.80, but the market dragged along to October, when the price advanced to $3.90. The latter part of the month $4.25 was reached, owing to the receipt of strong news from Smyrna, and the discovery that the spot stock was only 600 cases. The demand falling off soon after, a decline set in, which was gradual to the close of the year, when $3.70, in bond, was reached, on a quiet market.

The year 1880 witnessed the birth of the largest syndicate that had ever operated in opium, and as events have since proved, it has not been equalled since. The year opened at $3.75 under the effect of a confirmation of the crop damage. The stock at all points was placed at 3,500 to 4,000 cases, a ten months' supply for the world. Early in February the price advanced to $4.25, but soon fell off, as the demand was lacking, and $4 was accepted. Reports that a syndicate was about to take hold of the market stimulated buying, and $3.75 was paid for one lot of old. From this the market steadily advanced to $4.75 in March, under large purchases by the syndicate, which had by this time become an acknowledged fact. The price gradually advanced during the month to $5.87½@6, at which it closed, after a period of great excitement and large purchases, most of which were removed from the market. These high prices brought out stock, the holders desiring to take profits, and all the way up to $6.50 was paid. At the end of the month the syndicate withdrew, and the market sagged to $6.12½, one holder needing cash selling at $5.75. It was figured at this time that with an ordinary crop from the winter and spring sowings, coupled with the stock then in existence, there would be a surplus July 1, the beginning of the crop year, but reports soon came to hand that almost the entire winter sowings, which had been large, had been destroyed by frost. This was a great help to the syndicate. It was then remarked that the amount to be controlled was about 500,000 pounds, which would call for a capital of $2,500,000, which it was readily understood the syndicate could easily command. May was ushered in by a bear movement, and manufacturers reduced the price of morphine, which called forth comment that they were parties to the attempt to break the price, but those best informed promptly denied the report. The price receded to $5.50 at the close. June showed a decided improvement, owing principally to unfavorable news as to the crop about to be harvested, and the price steadily advanced to $6.75, but receded at the close to $6.50 asked, and $6 bid, owing to a slackening of the demand. The profits of the seyndicate looked well on paper at this time, but the demand for April, May and June had been disappointing to them, as it had been below the average of the six months preceding their advent, hence the market did not favor their realizing on their holdings. About July 1 the stock here was figured at 1,800 cases, of which the syndicate held 1,600 cases. London and Smyrna held 1,400 cases, all the desirable portions being owned by the New York capitalists. The crop was estimated not to exceed 1,800 cases, and everything promised a favorable termination of the manipulation for the holders. It was hinted that a spectre might arise in the shape of Persian opium, to disturb the syndicate's dreams. During July the market was quiet, and receded to $5.50, at which a sale was made, but recovered later, and closed at $5.87½. August opened quiet and weak at $5.75, and closed steady at $6.25. During the month the market fluctuated considerably, owing to speculative manipulation and unfavorable news from Smyrna. September opened weak, with sales at $5.75@6, which had the effect of steadying the market, and with more business $6.25 was reached, but here the demand ceased, and the market dropped to $6@6.12½, at which the month closed weak. October was quiet and weak, closing at $5.87½. November opened with sales of 130 cases at $5.62½@5.75. By the 15th a small sale put the price to $5.87½. Offers from Boston and a sale at $5.62½ removed the cheap lots, and the market became steadier, the month closing at $5.62½@5.75. December opened quiet, but by the 15th there was a slight improvement, $5.75 being paid for a few lots. Sales were made, however, at $5.37½@5.50, as buyers would pay no more, but these transactions stiffened the market to $5.62½, the advance soon being lost, as buyers found a few weak holders from whom to supply their wants at $5.37½@5.50, at which the year closed. The large holders were firm in their views, and entertained every confidence in the future.

The year 1881 was a disastrous one for the syndicate, inasmuch as the demand fell off, consumers curtailing their wants as much as possible, and trusting to something to turn up that they might purchase supplies at lower prices. This year practically witnessed the end of the huge speculation, which was brought about by the large crops harvested and by offers of small lots from all parts of the country by druggists and others who had purchased at odd times for investment. Boston parties were the largest sellers at lower prices, and they broke the market several times. A story is told of an old man who appeared at the office of Lanman & Kemp, and asked the late Mr. Hallgarten if they bought opium. Receiving an affirmative reply, he offered a case at the price named, and was prepared to make an immediate delivery. It appeared he had driven in from Newark, N. J., and with the case of opium in his buggy, his wife sitting on it while he made the bargain. He then offered several cases which he had stored. This is one of many stories that could be told in connection with the famous speculation. The opening price of the year was $5.25, and the closing price $3.12½. There was a stiff market the first few months, as the syndicate was loth to recognize the conditions that were making for its undoing. In February there were sales of 1876 crop in bond at $4.75, and 1878 crop was offered. In March money became tight, and the gosspis predicted that the syndicate would be compelled to unload, but it had ample means at its disposal, as events proved. Some 1877 crop was sold at $5.25. All sorts of rumors and reports were afloat to influence the market up or down, but the general consensus of well-informed opinion was that the crop would be a large one. Up to this time the average price in bond for thirteen years was $5.35. In July Lanman & Kemp issued a circular, in which they stated that opium was the lowest it had been in many years, due principally to the large holdings of the syndicate. In August a sale of ten cases at $2.75 was recorded, and at $2.87½ the syndicate placed several hundred cases. A writer at this time characterized the position of the "late" syndicate in this wise: "All of its anticipations, calculations and expectations have not turned out realizations." In November the crop estimates were 12,000 cases. The year 1882 opened active at $3.12½, and the price rose to $3.37½ by March 1, but with a 6,000-case estimate $2.75 was touched June 1. In August 4,400 cases was the estimate and $3.62½ the price. The year closed weak at $3.15. The extremes in 1883 were $2.50 in June and $3.15 in January, the year opening at $3.15 and closing at $2.87½ in bond. The crop turned out to be 7,000 cases. The only feature in 1884 was the cutting down of the crop estimates from 6,000 cases to 4,500 cases. The opening price was $2.90 in bond, the highest $3.12½, the middle of January, the lowest $2.65, the end of June, and the closing $2.85. The year 1885 witnessed a steady decline from $2.85 in January to $2.15 Aug. 1, due to estimates of a large crop; but, notwithstanding the fact that these were cut in half during the summer, a large crop of Persian kept the market down. Some low-grade opium, which had been offering for two years, kept the price down, as it contained barely 9 per cent. of morphine, and was offered at 25c. less than the regular price. There was a little recovery in the autumn, but the closing price was $2.25 on a dull market. It appeared later that an increased acreage was responsible for some of the depression. Where once madder had flourished was to be seen the poppy. The year 1886 opened at $2.20 and closed at the same price, which was the highest for the year. The middle of March twelve cases were sold at $1.95, which was the lowest price ever recorded in the history of the gum. There were rumors of the formation of another syndicate, but they proved unfounded. The crop promised such a yield that in May Smyrna holders released stocks at $1.90, and at $1.75 in June they were anxious sellers. Early in August the lowest price of the year was secured—$1.65—but in September, with an advance of 50c. abroad, this market went up 20c., reaching $1.90 at the close of the month on buying in Singapore for China and all other consuming centers. There was a lapse in November to $1.75, and a firm closing at $2.20, owing to prolonged drought.

In the year 1887 the bulls and bears had plenty of fun, and each side scored. The market opened strong at $2.20 in bond, and steadily advanced to $2.75 in March, when it spurted to $3.72½ on advices from abroad that if there were no crop there would certainly be a large deficit. Heavy rains in April started a decline which carried the market down to $2.85 early in May, but it spurted to $3.20 the latter part of the month owing to damage to the crop by drought, and to $3.30 in June on reports that most every crop in Asia Minor had been destroyed, and that the natives were starving. While no advices stated specifically that opium had been damaged, the bulls assumed as much, and showed letters estimating the crop at 2,000 cases, against 7,300 the previous year. In July $3.85 in bond was reached, but the bears then began to get in their work, and the price steadily declined to $2.87½ at the close of the year, at which 700 cases spot and to arrive changed hands, and 500 cases were foreed on the Smyrna market to settle an estate. It was found that with the visible supply and a good crop of Persian, consumers need not suffer for the want of opium. In May of this year an English syndicate proposed planting the poppy in Florida, and an expert was sent over to investigate, but nothing came of it. The crop of 1887 turned out to be 1,850 cases.

The tendency of values for the first seven months of 1888 was downward, notwithstanding the short crop of 1887, as so much Boston and under-test gum was offered. The last named was made in Smyrna. About 300 cases came here from Scotland, 100 cases of which were rejected as containing under 9 per cent. of morphia, and the balance passed by the customs authorities. The opening price was at $2.87½ in bond, and the market steadily declined to $1.65 the latter part of June, the bears taking advantage of every condition to depress the price. They then turned bulls, in spite of reports of a large crop, and succeeded in forcing values up to $2 early in October, being helped by what was supposed to be an European syndicate. A few small lots of five-year-old opium came out, but after all the market could not be sustained, and $1.82½ was reached early in December, the year closing stronger at $1.95 in bond. Boston pudding opium disappeared from view for a time, and early in December occurred the first reference to the question of the abolition of the duty of $1 per pound. Up to this time experiments had been made all over this country with the cultivation of the poppy. Vermont, Massachusetts, New York, Pennsylvania, Illinois, Minnesota, Iowa and Florida had been tried, and in the first named State a yield of 15.75 of morphia had resulted. In England, France, Germany, Italy and Greece a series of experiments had also been made, and a yield of 23 per cent. of morphia secured at Amiens, France, but in every case the labor was too high and the culture was abandoned. Boston had commenced to object to the term "Boston" opium, and the N. W. D. A. was induced to favor the name "standardized." During 1889 the market fluctuated between $1.82½ in bond in April to $2.40 in December. The opening price was $1.95, but nothing worthy of notice occurred, until May, when an advance to $2.10 occurred. Then a drop to $2 in July, when conditions favored a high range of values, and by September $2.40 was attained. With a drop in November to $2.30, there was a rally at the close to $2.40 in bond. In September it became known that "standardized" gum was to be made here by the Smyrna process, to contain 5@6 per cent. of morphia. At the N. W. D. A. meeting in October resolutions were adopted condemning the adulteration of gum. The year 1890 opened favorably for holders. The Smyrna market became very active, and for the first time in many years Europe began to buy goods in this market, as the world's supply was far below the average for this time of year, the autumn sowings having been damaged by frost. The price was run up to $2.85 early in February, but rains started a decline, which was helped along by an increased supply of American "pudding" opium, and in May $2.40 was reached. Then a recovery set in, owing to estimates of 4,500 cases on the new crop and a report that $1 per pound export duty would be placed on the drug by the Turkish Government. In June hailstones reduced the estimates to 3,500 cases, and the price continued to bowl merrily upward, until $2.80 was reached the middle of July. During this month the Greek, who had been making "pudding," gave up the undertaking and left the country. The American buyers withdrew from Smyrna, and the price dropped to $2.70 here in August. In October the price was forced up to $3.15, as there had been no provision covering opium in bond inserted in the tariff act in connection with the section that admitted gum duty free. The Government determined to levy duty, and to escape payment some lots were exported to Canada and reimported. The authorities finally receded from their position, and allowed all lots remaining in bond free entry. Lack of demand and offers of lots from needy Smyrna holders who wanted ready money, carried the price steadily downward, the year closing at $2.35. The importations from 1870 to 1890 were reported as 53,564 cases.

The year 1891 started out with the market depressed. Stocks were full and well distributed, and the Turkish banks continued to call on the Smyrna holders for margins, owing to the financial depression. The price declined steadily to $1.75 in August, influenced by estimates of a 10,000-case crop, which were afterward reduced to 9,000 cases. In the spring the heaviest rains in fourteen years fell, followed by dry weather. Conditions were analogous to 1886, when the crop was large. The year closed without incident at $1.87½. From this the price was carried steadily downward to $1.50 the latter part of July, 1892, owing to prospects of a large crop and the heavy stock here, notwithstanding the cultivated area was over 20 per cent. less than in 1891. This was the lowest price reported in the history of the drug. Estimates were reduced in August, and a Russia cholera scare failed to advance the price above 1.67½. It dropped steadily to $1.57½ in October, but recovered to $1.90 early in December. Rains in Turkey and bears here forced the price to $1.65 in a week, but there was a recovery by the close of the year to $1.82½, owing to a concentration of the stock. An opium

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SEE PAGE 36.

monopoly in Turkey was spoken of, but nothing came of it.

The year 1893 was rather severe on the holders of gum, especially during the summer months, owing to the financial depression. The market price dropped to $1.75 by February, but a speculation set in, on reports of frost in Turkey and an estimate of 2,200 cases for the coming crop, on account of the autumn sowings having been below the average. The latter part of March the price was advanced very suddenly from $2.07½ to $2.90, some holders asking up to $3.25, but buyers held aloof. The natives in Turkey, however, held the price up by buying there, but tight money in Wall street caused our holders to offer their stocks. Buyers did not respond, and the price declined steadily to $2.20 the latter part of August, but there was a recovery almost at once, in keeping with foreign values, and the market advanced steadily on reports of a very small crop, say 2,800 cases, to $2.70 the last week in September. After that it declined gradually to $2.05 early in December, but recovered to $2.20 at the close. The crop was 2,850 cases.

The year 1894 was one of the most memorable in the history of this drug. As soon as Congress assembled, in December, 1893, efforts were made very quietly to induce the Ways and Means Committee of the House of Representatives to restore the duty of $1 per pound on opium in the new tariff bill they had determined to prepare. Under this influence the price advanced to $2.35 the latter part of January, then spurted suddenly to $2.65 in one week, when the bill was reported to the House, in which provision had been made for $1 per pound duty. There was considerable excitement, and the price was rushed up to $3 early in February, and this was bid and refused for 200 cases, $3.25 having been demanded. Large sales were made, however. During the first three months of the year more opium was imported than during all of 1893. As the debate on the tariff bill progressed, it began to appear as if the Senate would not accept the House bill, and the price commenced to decline early in March, influenced, to some extent, by the prospect of a large crop, so that by the latter part of April $2.20 was reached. The Drug Trade Section of the New York Board of Trade and Transportation memoralized the Senate against the reimposition of the duty, and in May the Senate bill appeared with opium free of duty. The price dropped to $1.85 by the middle of June, then spurted to $2.17½, on the receipt of unfavorable news from the interior of Turkey regarding the crop. It dropped off to $1.90 in July, then spurted to $2.20 in August, but the demand fell off, and $1.85 was reached in September. Damage to the autumn sowings caused a reaction to $2.10 in October, and up to $2.35 early in November. The latter part of the month $2.20 was touched, and in December $2.40, the year closing at $2.35. The imports in 1894 were 723,522 pounds, the largest in 10 or 12 years.

The year 1895 opened with conditions favoring lower prices. The stock was large, and the weather in Turkey so balmy that sunshades were everywhere in evidence. Furthermore, a large crop was promised. Early in February $2.12½ was reached, but reports of black frost caused a temporary spurt to $2.20; then the price sagged off to $1.85 in April, but recovered to $1.95 then down to $1.67½ at the close. June 8 $1.60 was touched, and buyers held off, expecting to purchase at $1.50, but it did not reach this point, as Smyrna merchants had made a large amount of money on wool and mohair and could afford to carry opium. Early in October $1.70 was quoted, and the year closed at $1.90. The arrivals of gum in Smyrna were double what they had been the year previous. The incident of the Adelphi Couppa will be readily recalled. In March 400 cases of opium were reported to have been placed in this steamer to be shipped to London. It was insured for £20,000, but rumors of fraud to obtain the insurance had preceded the steamer's arrival in London, so that when she arrived in the Thames her consignees deemed it advisable to settle with the purchasers of the gum, rather than permit her to discharge. She returned to Smyrna, reaching there in May. An examination revealed the fact that the gum had never been shipped, having been merely transferred from one warehouse to another, and that the cases contained rubbish. The operator who had planned the fraud was arrested. The closing year of the period under review was not a very exciting one. The opening price was at $2, and by the latter port of March the market had declined to $1.90. On reports of favorable weather for the spring sowing there was a slight recovery to $2.07½ early in May on estimates of a 4,000-case crop, but by July 1 the market had sagged to $1.95. Then came reports of a 3,300-case crop, which carried the price up to $2.40 early in August, from which there was a gradual decline to $2.12½ the latter part of October, owing to a lack of speculation and the attitude of consumers, who had been pursuing a hand-to-mouth policy for several months. There was a slight recovery after this, and the year closed at $2.20. During the summer some lots of low-test opium were imported from Smyrna by way of London. They were detained at the New York Custom House and submitted to a rigid examination, with the result that those cases that were found to be below the test required by law were refused admittance. They were subsequently returned to London. The amount was not large, however.

Interesting Features of the Alcohol Market.

Up to within the last few years the alcohol industry had not been run on the same principles as business men usually apply to other manufacturing interests, for the reason that the distillers of alcohol were primarily feeders of cattle. The alcohol business being therefore incidental to the fattening of beeves for the market, the early distillers made their profit on the cattle, hence the alcohol market was at times very unstable, and year after year there was of necessity a large overproduction. Although the consumption of spirits and alcohol increased largely year by year, the time came when the distillers could not altogether ignore the conditions that existed in the alcohol market, especially when they found themselves making smaller profits on their cattle. Efforts were made from time to time to bring about some working arrangement among them, but nothing was really accomplished until the Western Export Association was organized in 1882. As far back as 1878, however, and even a little before that, the export trade in alcohol had begun to be of some assistance to the distillers. In the year 1878 the export from New York was about 107,586 barrels. Germany, France, Italy, Malta, etc., were the principal buyers. In 1879 the exports had amounted to 153,476 barrels and 1,832 puncheons. In 1880, 183,426 barrels and 1,832 puncheons. In 1881 they had declined to 132,988 barrels and 626 puncheons. An advance in the price of corn in 1881, which had made the cost of alcohol 50c. per gallon in bond, was the cause of the large decrease in the exports, inasmuch as the distillers could not meet the foreign cost, which was 40c., hence steps were immediately taken to regain the ground lost in foreign markets, and the result was the birth of the Western Export Association. This included all distillers north of the Ohio River, as far west as California, with the exception of three small houses in Ohio. The association had for its object the limiting of production of spirits to balance the supply and demand, and a combination of home and export prices that would enable them to make up in the home market what they were compelled to lose in the foreign markets in order to place their surplus product. With the highest priced corn in several years, the loss on the export trade to the distillers was 25 to 30 per cent. The market became demoralized after a time, owing to an agitation that was started to reduce the internal revenue tax. The association was dissolved by limitation May 1, 1882, and for a time it looked as if the agreement would not be renewed.

The distillers had been working on one-half of their capacity, and the association had paid those of its members who manufactured for export a bonus of 7c. to 20c. per gallon. In the minds of some, conditions did not appear to warrant a renewal on this basis, but before the time came for renewing distilling operations in the autumn, the association was reorganized to date from Sept. 1. The agreement was to curtail production 40 per cent. of the capacity of the distilleries. Figures showed that the average cost during the distilling season of 1881 and 1882, based on fluctuations in the price of corn, had been 40c., while, with a large potato crop in Germany, distillers had been obliged to export at as low as 31½c. According to the new deal they were not to pay bonuses to distillers for goods exported, consequently there would be no such difference between the home and export prices as had existed the year before. The export trade naturally suffered. In the year 1882 it had amounted to 63,017 barrels, 13,000 barrels of which was reimported.

Dealers in alcohol for home consumption had not been pleased with the arrangement. Being the natural distributers, they were compelled to buy at an arbitrary price, fixed by a combination in which they had no voice, and to sell upon margins so close as to leave them little or no profit. As the price for bonded alcohol declined, that for home consumption had advanced; thus, in point of fact, obliging duty paid dealers to support the export trade. This state of affairs led to the adoption of a course on the part of some of them which they hoped would defeat the plans of the combination. During the early months of 1882 they exported in bond several thousand barrels to nearby points, and subsequently reimported them. The intention was to export a large quantity, which would force up the home market by reducing the stock in bond, and thus enable these operators to realize a handsome profit when they came to offer the reimported goods, for, instead of paying $2.22, or thereabouts, for free alcohol, they purchased at Peoria for about 31½c. in bond, delivered in New York, shipped to short points, and returned at a freight cost not far from 4c., which added to the reimport duty of $1.70, would lay it down here, all expenses included, inside of $2.10, but they appeared to have signally failed in their undertaking, and were compelled, for want of a market for duty-paid goods, to sell almost all of it in bond.

Conditions this year appear to have been the reverse of what they were the preceeding years. There was a large potato crop in Europe in 1883, and the export trade suffered severely. Many of the Western distillers had not been pleased with the prices they had been paid by the New York exporters, hence they determined to consign goods direct to Europe. The result was disastrous to them, and the price for export continued to decline. There was little improvement in 1884, but early in 1885 the demand improved somewhat, in spite of the large stocks abroad, as France and Italy were large buyers. The export price was 26c., while the home price was maintained at 42c. in bond. The year before the big demand had been from Germany and the Argentine Republic. The price of corn ruled high later in the year, and, with a big German and Russian production, the export trade was seriously crippled.

In August there was sharp competition among distillers, owing to a failure to renew the agreement. It was proposed by some of the large distillers to incorporate, under the laws of Illinois, a company known as the American Spirit Company, capitalized at $100,000, each distiller to take stock in proportion to his capacity. Under the old arrangement, without any incorporation, it had been found practically impossible to enforce by legal means the terms of the agreement against any distiller who might have been detected in violating them. The new idea did not meet with favor, however, and the Western Export Association was reorganized the last week in October, each member to run 40 per cent. of his capacity, the association to pay those distillers which closed 12c. per bushel of their capacity. In spite of these precautions, however, overproduction resulted, and in April, 1886, the producing capacity had been reduced to 28 per cent. During this month there was a meeting in Chicago, at which were present seventy-one distillers out of ninety-one composing the association, at which they expelled one distiller, who violated every one of the obligations imposed on him. At this meeting a scheme of incorporation was approved, the capital stock to be $200,000. The new arrangement went into effect June 10, 1886. It was decided to reduce the total capacity of the distillers from 110,000 bushels per day to 85,000 bushels, and allow the production of 36 per cent. upon this capacity. This meant a daily product of 150,000 gallons of spirits. The capacity was to be apportioned among the houses that were then running, by the board of managers, who were also to fix the amount of the assessments to be levied against each running house to pay the closed houses, the running houses to be organized into a stock company to guarantee the payment of assessments against these houses for a period of three months at a time. By this arrangement the closed houses were assured that the assessments for a given period would be paid, whether the pool broke up or not. Heretofore they had had no remedy against the running houses when the pool disbanded, and this had led to endless dissatisfaction.

Some difficulty was experienced in obtaining the consent of all distillers to participate in the new arrangement. Five of them resolutely refused to give in their adhesion, but before the season opened in September all had become a party to it, and the capital had been fixed at $250,000. The running capacity was fixed at 28 per cent. As the season advanced the export trade became so unprofitable that it was determined not to make any alcohol for export after May 1, 1887. The export premiums and the differential duties in foreign countries had become so onerous that the distillers saw no profit in the business. The distillers apparently had not dwelt together in harmony, as there was an open rupture in May, which caused a drop of 7c. per gallon in two weeks, and the pool was practically suspended. In July the price declined from $2.20 to $2.03, and the trade became thoroughly demoralized. At this time those interested began to talk of forming a trust on the lines of aggregations of capital in other industries during the year. A case at this time excited considerable interest; it was that of a distillery in the State of Iowa which had been prevented by the State from exporting its goods to other States, the authorities claiming, under the State law which prohibited the manufacture and sale of distilled and malt liquor, they could prevent it doing business outside the confines of the State. In the litigation which followed the State was not sustained, under the Constitution of the United States, which allowed freedom of trade between the States.

For six months or more negotiations looking to the formation of a Trust had been quietly going on, but had not reached a state of perfection, as five of the largest distillers refused to become a part of it. Early in 1888, however, it appears to have become an accomplished fact, as the price in February was advanced 10c. per gallon from $2.

Having practically secured control of the business the Trust, which had become known as the Distillers' and Cattle Feeders' Trust, began to revolutionize the distribution of alcohol and spirit. Up to this time the distributing trade of the East had been in the hands of practically nine concerns, who handled over 60 per cent. of the consumption of the country. As if to protect themselves in the privileges that they had enjoyed, they formed themselves into an association, which included nine members, who were all the principal receivers and rectifiers of spirits. The Trust advanced the price 6c. per gallon in May, and determined to fine every dealer who sold below its fixed price $300 for the first offense, and refused to sell him goods should he offend a second time. It will be interesting at this particular time to read what the chairman of the Committee on Distilled Spirits of the New York Produce Exchange said in an interview with a reporter:

"There is no danger that the Distillers and Cattle Feeders' Trust will become a burden to the trade by raising the price of spirits and alcohol above what is sufficient to give the distillers a reasonable profit, because the State of Kentucky is full of distilleries making Bourbon whisky, not one of which has or will come into the Trust, and all of which could, in a week's notice, with no change in their machinery, manufacture the article dealt in by the Trust."

The price in June had reached $2.22. There was nothing of interest until the month of December, when the Shufeldt Distillery in Chicago was blown up with dynamite. It was thought at the time that the Trust had something to do with this. Early in January, 1889, the Trust inaugurated a big fight against the outsiders, and the price was reduced 10c. per gallon. In February it touched $1.98. During the year there was considerable agitation against Trusts, and steps were taken to reorganize and incorporate under the laws of the State of Illinois. This was accomplished in February, 1890, under the name of the Distilling and Cattle Feeding Company, with a capital stock of $35,000,000. The company controlled at that time about 75 per cent. of the producing capacity of the country. All of the plants could have been duplicated for about $3,000,000, so said an authority at that time. In June the price was advanced to $2.12, a net advance of 14c. This marked the birth of the famous rebate plan, under which the rebate was 10c. per wine gallon on alcohol. It was afterward raised to 14c. The company issued with each purchase a rebate voucher, which the purchaser was compelled to sign after the lapse of six months before he could obtain this rebate. The condition was that he was to purchase all of his supplies for the preceding six months from the Trust, failing to do which he for-

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DRUGS AND GENERAL MERCHANDISE

felted his rebate. In August the price was raised to $2,20, and in December to $2.22. In February, 1891, the secretary of the Trust was arrested, charged with attempting to wreck the Shufeldt distillery. The matter was smoothed over, however, and in June the distillery was sold to the Trust. The opening price was at $2.22, but in April it was raised to $2.30, which remained the price until the close of the year. In February of 1892 the Federal Grand Jury at Boston indicted the officers of the Whisky Trust for conspiracy, under the Sherman Anti-Trust law. They were arrested and gave bail. The price was reduced to $2.22 in February and to $2.20 in March. In May it was advanced to $2.26, less 13c. rebate, which made it $2.13 net. Independent distillers were selling at $1.98. The distributers at this time organized themselves into the American Distributing Company, capitalized at $5,000,000, under the laws of West Virginia. They had become the Trust's distributers in the East. Competition, however, had been so keen between the Trust and the independents that the Independent Distributing Company was organized, the secretary of the American Distributing Company becoming its head. It was supposed by those best informed that this was merely another trick of the Trust's to gather in the customers of the independent distillers, but the officials denied the relationship that was supposed to exist between the two companies. In the spring of this year the Columbus Distilling Company was organized in Brooklyn, with a capital of $500,000, to distil alcohol from molasses. It started as an independent company, but soon became very confidential in its relations with the Trust. The Trust, which had become possessed of about 98 distilleries, purchased five more, and got a tighter grip on the trade.

With the prospect of tariff legislation in 1893, the Trust in December, 1892, commenced to agitate for an increase in the internal revenue tax, and the price was advanced to $2.54, less rebate. The Drug Trade Section of the New York Board of Trade and Transportation and the Philadelphia Drug Exchange took decided action against any increase in the tariff. The Trust deemed it wise to drop the price from $2.54 in January to $2.28 in February, possibly in the hope of appeasing the interests that were arrayed against it on the question of increasing the tariff. A committee of Congress, which had investigated the subject, submitted a report in March, in which they advocated a reduction in the duty to $1 per proof gallon from $2.50, and the internal revenue tax to 90c. In March the price was reduced to $2.24, and in May to $2.18. By this time the Trust had become so obnoxious to the trade that the States' Attorney of Illinois was impelled to proceed against it. Quo warranto proceedings were accordingly brought by him before the State Court in Chicago, and it was asked to show by what right it had misused and perverted its powers and franchise. May 26 was set as the date for the hearing. The year closed at $2.24. The first suit against the Trust, under the rebate system, was brought in Kansas City the latter part of 1893. It was brought by the Trust to enforce the collection of an account based on sales of its product and against which the defendants pleaded an offset in rebate certificates issued to them by the Trust. The case was submitted to a jury, and their verdict, rendered under the instructions of the Court, sustained the counter claim of the defendants, and thereby condemned with legal solemnity the pretended right of the Trust under the rebate arrangement the exclusive patronage of its customers. Two material points were involved in the controversy, one being whether the plaintiff was a trust in contemplation of the law, and the other relating to the legal effect of the rebate vouchers held by the defendants. In the opinion of the learned judge, the concern was clearly proved to be a trust, under the statutes of both Missouri and Illinois, and in the instructions of the Court the jury was told substantially that if the defendants were prevented from purchasing from the Trust because the latter raised the prices of its product above the market value of such goods, the rebate agreement could be no legal bar to their buying elsewhere. The verdict of the jury is interesting and quite unique. We reproduce it herewith:

"We, the jury, find for the defendants on their counter claim and assess their damages at $289.13. We, the jury, find for the plaintiff, in its cause of action and assess its damages at the sum of $206.05."

In March, 1894, a wholesale liquor dealer in this city tendered the Trust, in payment for goods he had purchased from them, certain rebate vouchers of theirs, which they refused to accept, and brought suit for the amount of their bill. This he refused to pay, and brought a counter suit against the Trust in the New York Supreme Court for the full amount of his rebate vouchers. The Trust was apparently unwilling to allow this suit to go to trial, and the result was a compromise, under which it tendered its customer a certified check for the full amount of the difference between the two claims. This settlement was made in face of the fact that he made no secret of having purchased goods in violation of the terms of the contract. Early in April the Court in Chicago handed down a decision in the quo warranto proceedings, in which the company was held to be a dangerous illegal combine, and that the defense it had made had not been sufficient.

For six months or more the Eastern distributers of the Trust had been at loggerheads with the monopoly on account of the establishment of independent depots in various sections for supplying the trade. Consumers of alcohol had weakened somewhat in their allegiance to the Trust, and were using every effort to break away from the monopoly. The distributors found they were losing their trade, hence they brought pressure to bear on the Trust for an arrangement that would enable them to regain their lost ground. Some of them had not waited for this arrangement, but for more than a year had been making concessions to buyers, and had been selling goods flat wherever they found it necessary to do so to hold their trade. The opening price of the year was $2.24.

In April competition with the independents had become so keen that the Trust was forced to lower the price to $2.05 flat—the same as that quoted by the opposition. This concession was only made where it was absolutely necessary, the rebate being exacted when possible. In May the Trust was compelled to pay a Baltimore concern which had been one of its distributors $37,000 rebates The Trust made another desperate attempt to get the tax raised from 90c. to $1.10 or $1.20 per proof gallon, hoping thereby to raise sufficient money to tax-pay its stock at 90c., and, by advancing the price of alcohol equal to the advance in the tax, realize a handsome profit. The price was advanced to $2.30 in July as a preliminary step, and in August to $2.42. The president of the Trust during the time between the passage of the tariff act of 1894 and the date when it took effect, which was about ten days, made a desperate attempt to raise several million dollars to enable the Trust to take advantage of the situation. Arrangements were almost perfected with a syndicate of New York capitalists to advance the money when the scheme fell through, as one of the directors of the Trust refused his individual indorsement on the notes. The Trust did manage to pay tax on about 3,000,00 gallons, out of about 8,000,000 held, and to that extent reaped a handsome profit. The independent price remained at $2.30, where it had been advanced from $2.00 in July. The Trust's price was $2.42, less rebate. The Independents tax-paid large quantities, and made very profitable turns. In September the market reached $2.52, less rebate. The president of the Trust began courting an investigation. The annual report April 1 had showed $1,860,525.24 due the trade on rebates. A Trust company in this city held bonds worth $2,500,000 face value, but were really worth about 50 cents on the dollar. Steps were taken by representatives of rebate holders in this city to protect themselves, and the fight against the monopoly became so brisk that on Oct. 4 the Trust abolished the rebate system. In September Judge Gibbons of Chicago had directed a judgment of ouster against the Trust. The National Distributing Company was organized in October to distribute the goods of one of the Western distillers. The powers in control of the Trust fought desperately against heavy odds, and promulgated a plan of reorganization in December, on a basis of $10,500,000 capital stock, $3,500,000 to draw 7 per cent. interest, and $7,000,000 of common stock. For several years the concern had been run to influence the stock market as well as in the interest of the stockholders, and every move that was made was watched in the hope of discovering what side of the stock market the company's officials were on; hence it was that in the latter part of 1894, when the president asked for $1,000,000 from the stockholders, with which to handle the Trust's goods in the East, it was looked upon as a big bluff. The American Distributing Company, not to be caught napping, purchased a large distillery at Terre Haute, Ind., in order to be in a position to take care of its trade should its relations with the Trust be severed. As if to complicate matters, one of the directors who had resigned brought suit against the Trust for $550,000 for nonfulfillment of a cattle-feeding contract that he as an individual had with them. In January the fine Italian hand of the president, it was thought, could be seen in a circular that was issued by a firm of New York attorneys for the organization of a committee of stockholders to investigate the Trust. The original committee, which had been organized the previous September to protect the rebate holders, had moved quietly along in its course, gathering strength each day, until by Jan. 26 it had secured proxies on a majority of the capital stock of the Trust. It was known as the Reorganization Committee, and its purpose was to reorganize the Trust without the appointment of a receiver. On the day mentioned a telegram was sent to the president of the Trust, at Peoria, that a committee would be on to investigae its affairs. When the members reached Cincinnati Monday morning, on their way to Peoria, they were advised by telegraph from Chicago that the president had that morning had himself appointed receiver by the court. They hastened to Chicago and got a stay for a week. When it was ascertained that he had received his appointment on the petition of the alleged holders of 1,700 shares, out of nearly 350,000 shares, the Court set aside his appointment, and a receiver in the interests of the committee of stockholders was appointed.

In February, 1895, the American Distributing Company proceeded against the Trust for rebates due, by attaching some of its property in the hands of a local agent. In order to forever free itself from further embarassment, this company built a 10,000 bushel house at Terre Haute, called the Majestic, which, with its other distillery there, would make it at any time practically independent of any other concern.

In February the Spirits Distilling Association was organized in Chicago, which included not only the independent distillers, but the receiver of the Trust. Its plan was to make prices uniform, but it was not of long duration, owing to jealousies that arose, and a determination on the part of some of its members to secure all the trade they could. The annual meeting of the Trust was held in April, at which a board of officers and directors was elected, in sympathy with the majority of the stockholders. The receiver of the Trust brought suit against the ex-officials to prevent them from disposing of $1,000,000 worth of bonds which they had taken at 50c. on the dollar a year or two before. Suits for conspiracy were also brought against them. The Central Trust Company of this city moved to foreclose a mortgage for $8,000,000. In June the Supreme Court of Illinois pronounced the Trust illegal. The Reorganization Committee bid $9,800,000 for eighteen of the distilleries held by the receiver, and the bid was accepted and confirmed by the court. In August the American Spirits Manufacturing Company was organized to take over these properties. The capital stock was $35,000,000, divided into $28,000,000 common stock, $7,000,000 preferred stock and $1,400,000 in bonds. In October the court ratified an agreement which the receiver had made between himself and the ex-officers of the Trust, by which all the suits (but one) on both sides were withdrawn. The price during the year had fluctuated between $2.29 and $2.36 in January and February respectively. In October an agreement was drawn up between all the distillers, under which the daily production was fixed at 35,000 bushels, although the producing capacity of the country was 110,000 bushels per day. It was hoped that a stable market could be maintained through the distilling season, but one distiller violated the agreement, and sold all the goods he could, with the result that at the end of the season in June it was found that there had been a large overproduction, and prices had not been very remunerative. It was determined not to renew the agreement unless every distiller could be included in some plan adopted whereby an offender could be punished. Several attempts to perfect a combination were made during the Autumn, but the distiller who violated the agreement last season declined to become a party to any arrangement; hence nothing was accomplished. The feature of the year was the declaration in May by the Master in Chancery at Chicago that the rebate vouchers were valid. This finding was confirmed by the court, hence all of the rebate certificate holders failed to receive the value of their certificates. The opening price was at $2.32, the closing at $2.26.

In the light of the preceding review, it will be observed that for many years the production has largely exceeded the consumption, and at no time have the distillers been enabled to make a profit without the aid of an agreement. Many times they have secured a fair return on their investment, even though they have been compelled to sell alcohol at cost. A favorable slop contract has paid them under these circumstances a substantial profit.

For the last fifteen or twenty years at intervals there has been more or less agitation in and out of Congress, having for its object the freeing of alcohol of the internal revenue tax whenever it was to be used in the arts and industries. The agitation was very pronounced at the time the tariff of 1882 was under discussion, and the Randall Tariff bill of 1888 removed the tax, but the bill never became a law. The tariff of 1894, as will be readily remembered by our readers, made alcohol free for use in the arts and industries, under regulations to be prescribed by the Secretary of the Treasury. Controversy is so fresh in the minds of our readers that we will not burden them with a review of it, as the question is still undecided.

Borax.

Previous to the year 1873 the borax industry of the United States had not amounted to much, but in that year the production was about 2,000,000 pounds, an increase over the preceding year of about 1,700,000 pounds. The deposits were found in Nevada and California. The price in New York was 32c. per pound. Down to the year 1878 there was a steady decline in the price, when 8⅞c. was reached. This was due in some measure to improved methods for getting the crude to the works, to over production, and to keen competition between the various companies engaged in mining the crude and preparing it for the market. The English market was also a factor, as its influence was felt here.

An agreement was then entered into between the California producers, by which production was to be curtailed somewhat, and under which the stock in San Franisco was reduced from 277,000 pounds in January, 1879, to 20,000 pounds June 1, and the price advanced 25 per cent. A combination was then formed, and after July 1 the consumption increased to 50 tons per month. There was a spirited competition between the Californians and another American house that used boracic acid for making borax. The imports of acid were heavier this year than they had ever been before. In 1880 there was a big advance in London from £35 to £60, which continued for one year. New York naturally followed suit. The imports of boracic acid in 1879 were 1,749,450 pounds, against 2,808,960 pounds in 1880. The market held firm until 1883, and the production largely increased. There was a good outlet abroad, however, which helped the California producers. The tariff of 1883 made the duty on refined borax and pure boracic acid 5c. per pound, on commercial boracic acid 4c. per pound, and on borate of lime and crude borate 3c. The last two had been free. The price dropped in 1884 to 9¾c., owing to a decline from £60 to £40 in London. During that year exports were made from San Francisco to New York by way of Liverpool, owing to the high rate of freight overland. There was a steady decline in the price for each year until 1887, when the average New York price was 5¾c.

In 1885 borax was offered in California at half the price of 1882. This year the Borax Board was organized, and it included about all of the producers on the Pacific Slope. The decline above alluded to was due to over-production and excessive competition. The low price, however, opened new channels of consumption. A more perfect combination was formed in 1888, and a slight advance in the price took place. In 1890 the agreement expired, and in November of that year the Pacific Coast Borax Company absorbed nearly all of the producers. The tariff of 1890 raised the price on crude boracic acid to 5c., which was of some help to the California producers. The production increased enormously year by year until 1893, when it fell off slightly. The tariff of 1894 reduced the price on borax from 5c. to 2c. per pound; on boracic acid from 5c. to 3c., and on borate of lime from 3c. to 1½c. The

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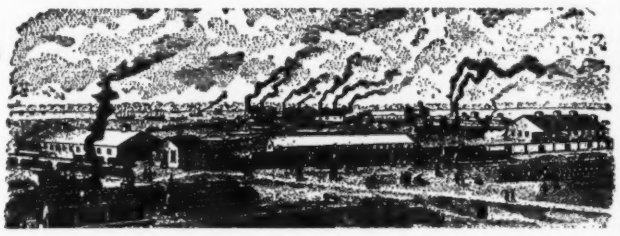

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price here, however, did not decline correspondingly, and large quantities of English refined borax were imported. The price dropped 1c., then ¼c., then another ¼c., until 6⅜c. was reached, the import cost being 6½c. Keen competition then set in between the American refiners, and in December the price had reached 5¼c. in carloads. In February, 1895, there was an advance to 5½c.; March 1 to 6c.; but in the latter part of April 5¾c. was touched; in June 5½c., and Aug. 1, 5¼c. which was the lowest price ever known in this market up to that time. In November the market advanced to 6c.

Under the new tariff the New York city refiner had a distinct advantage, and imported enormous quantities of borate of lime. On the other hand, the California producers shipped large lots of crude to Liverpool. Finally, in April, 1896, a new concern was floated on the London market, comprising the Pacific Coast Borax Company at San Francisco, and Redwood's Chemical Works, limited, at a capitalization of $2,550,000 and $500,000 first mortgage bonds. The plan was to ship the California crude to England, refine it there, and sell it in competition with the English article. A handsome divdend was earned during the first six months of the new company. On the 9th of November last the price was reduced to 5c. in carloads, which is the lowest price this article has ever touched. We append a table of considerable interest:

PRODUCTION OF BORAX IN THE UNITED STATES.

	California. Pounds.	Nevada. Pounds.	Total. Pounds.	Average N. Y. Price.
1872	280,000	.....	280,000	32c.
1873	1,030,000	970,000	2,000,000	24 4-5
1874	1,829,771	2,170,138	3,999,909	14½
1875	2,336,000	2,804,000	5,140,000	12⅝
1876	2,873,909	2,307,001	1,180,918	10⅞
1877	1,986,970	2,740,310	4,727,280	9¾
1878	746,840	2,055,960	2,802,800	8⅞
1879	727,146	827,840	1,554,986	9
1880	1,219,948	2,640,800	3,860,748	12¼
1881	1,380,205	2,665,200	4,045,405	13¾
1882	1,465,732	2,770,559	4,236,291	13¾
1883	1,800,000	3,800,000	5,600,000	14¾
1884	2,037,940	5,075,363	7,113,303	9¾
1885	1,885,300	5,586,104	7,471,404	8¼
1886	2,569,630	6,524,542	9,094,172	6¾
1887	2,029,350	5,571,735	7,601,115	5⅞
1888	2,808,088	4,004,355	6,813,443	7
1889	1,939,600	5,333,482	7,273,132	7½
1890	6,402,094	5,487,794	11,889,828	7½
1891	8,033,337	3,206,663	11,830,000	7½
1892	11,606,514	2,646,525	14,243,039	7½
1893	7,999,562	1,199,438	9,199,000	7½
1894	11,540,099	1,600,595	13,140,694	6
1895	11,919,141	1,587,215	13,506,356	5½

Bromine.

The bromine industry is one of the smallest, yet one of the most important in this country. As is well known, bromine is a by-product in the manufacture of salt, hence it is obtained wherever there are salt wells, but not always in sufficient quantities to pay to recover it. Up to 1885 very little interest had transpired, but early in that year a combination was effected among nearly all of the producers throughout the United States. The product was pooled and sold through the agency of D. G. Hildt of New Philadelphia, Ohio. Owing to this combination the price rose steadily from about 19 cents per pound to 30 cents in April, and to 33 cents before the close of the year, with an upward tendency. Nearly all the bromine manufacturers ceased operation temporarily in May, 1887, on account of the accumulation of stock and dullness of trade, but the average price was held at 27 to 31 cents per pound. Up to March, 1891, there existed an agreement between the National Bromine Company, which was the name under which the above-mentioned pool did business, and the German producers, under which their sales were limited to the United States and Europe respectively. The American company also had an understanding with some of the largest consumers in this country concerning the sale of bromine. In March the contracts between the consumers and the National Company expired, and the latter dissolved, as it was unable to renew them. This, of course, canceled the contract with the German producers. The American stock which had accumulated was then offered abroad. The sales were made in England, France and Germany at lower prices. This move forced the Germans to retaliate, and they sent bromine as well as bromides to this country, which they sold at prices lower than any before quoted in this market. The lowest price reached was 17½ cents per pound, and the average price realized by the American manufacturers during the 1891 was not over 20 cents. Throughout 1892 the price ruled low, the average selling price at the works being about 17 cents, but in October of that year the Stassfurt, Germany, manufacturers made an arrangement with the American firms by which the competition was discontinued. The result of this agreement was the re-establishment of the old higher price for bromine, viz., 25 to 30 cents per pound. The end of 1893 it was quoted 35 cents per pound in carload lots. During the year 1894 the average price was 26 cents per pound, and this was the price for the following year. Under the agreement between the Germans and the Americans it was understood that there should be no exports and no imports. The following table will be read with interest:

PRODUCTION OF BROMINE IN THE UNITED STATES.

	Pounds.	Dollars.
1880	404,690	114,752
1881	300,000	75,000
1882	250,000	75,000
1883	301,100	72,264
1884	281,100	67,464
1885	320,000	92,800
1886	428,334	141,350
1887	199,087	61,717
1888	307,386	95,290
1889	418,891	125,667
1890	387,847	104,719
1891	368,786	73,757
1892	379,480	64,512
1893	348,399	87,100
1894	379,444	98,655
1895	394,854	102,662

Quicksilver.

The quicksilver industry of this country has had its ups and its downs, but principally its downs, since 1872. In 1874 the world produced 80,000 flasks, the consumption was 83,000 flasks, and the scanty supply of the previous two years was used up, a heavy stock having accumulated in the old world. The production of California increased so rapidly, however, as to force the producers to export largely. Profits were good at that time. In 1875 the London price was lowered very materially in order that the Rothschilds might conclude a favorable contract with the Spanish Government to control the output of the Spanish mines. Such an arrangement was made for a series of years, and the price immediately advanced. In this connection it may be well to mention that the influence of the Rothschilds has always been felt on this market, and their word has been law for a long time. Their connection with the Spanish mines of Almaden is said to have come about in this way: To secure and repay a loan of $8,500,000 subscribed to in 1870 by Rothschilds and payable in thirty annuities of $750,000, the Spanish Government granted to them a monopoly of the sale of the product of the mines on the following conditions: The Government pledged itself to deliver yearly at least 32,000 flasks of quicksilver, each holding 76½ pounds avoirdupois. The price of that delivered to the Rothschilds was regulated by the current price of the metal in the London market. The minimum allowed was £6, and should the price fall below these figures the Government would not receive less than £6, when the price was from £6 to £8, the increase over £6 was equally divded between the two contracting parties, and above £8 the bankers were to receive one-third of it and the Government two-thirds. The price of quicksilver being, for instance, £14, the Spanish Government would receive per flask, first, £6 as the minimum, second, £1 for the first increase of £2; third, £4 for the second increase of £6; total, £11 per flask. The average yield of the ore at Almaden was from 8 to 9 per cent. of quicksilver, which was from three to four times richer than the ore of California, and the cost of her quicksilver per flask in 1872 was $9.45; in 1873, $8.43; in 1874, $10.46; in 1875, $9.13.

The low price in California has shut up several mines. In passing it may be stated as a bit of news of that period that the Nevada Bank once broke the market by reimporting 2,500 flasks from China. In 1880 some of the mines were badly crippled by an act of the Legislature prohibiting all State incorporations from employing Chinese labor. The production was decreased, as all the laborers had to be discharged. This law was afterward declared unconstitutional. A combination was formed in April, 1880, but in June it went to pieces, as one of its members had quietly taken advantage of the conditions to sell his stock. The Tariff Commission of 1882 was asked to recommend a duty of 20c. per pound on the ore. The Commission reported for 10 per cent. From 1880 to 1883 California produced nearly one-half of the world's supply. In June, 1884, the stock was 100,000 flasks, nearly all of which was held in London, and which was a year's supply, but by the latter part of the year it was pretty well worked down. The industry was very much depressed in 1884 and 1885. There were only ten mines working, whereas there had once been thirty. No dividends had been paid, although possibly some had been earned. In 1887 there was an increase in price of all metals, due to a speculation and an increase in hydraulic mining, but this was of short duration.

Periodically the market was helped by an increase in the demand from China whenever there was a royal celebration there. Not only the town, but the whole country, or, to be strictly accurate, all the palaces in the country were painted a rich vermilion. There were times, however, when these reports had no foundation in fact, but were simply used to work the market. In 1893 there was an increase in production 2,000 flasks, but the price declined, owing to the silver agitation which closed the silver mills, and to the fear that Congress would remove the duty. In 1894 the tariff was fixed at 7c. per pound—a reduction of 3c. from the tariff of 1890. There was a better demand, the opening having been at $28.50, which was the lowest price ever reported in California. The market began to advance by September, influenced by a better demand through a resumption of silver-mining operations and a greater consumption in the far East. At the present time the California producers are well organized and in a combination to regulate production, but the London price governs the market. The Eastern markets have been almost lost to the California people, the Rothschilds having practically secured control of them. Toward the latter part of 1896 the market strengthened somewhat, and closed firm at $36.75 per flask. The old California mines were actively operated during the year, and in addition considerable prospecting and development work was done. In view of the activity in gold mining in all the world's gold districts, and the fair demand from China for supplies for making vermilion, with other uses remaining the same, a better price might have been looked for.

QUICKSILVER STATISTICS.

	U. S. San Francisco.			London.					
	Produc-	High-	Low-	Highest.			Lowest.		
Year.	tion.	est.	est.	£	s.	d.	£	s.	d.
1850...	7,723	$114.15	$84.15	15	0	0	13	2	6
1851...	27,779	76.50	57.35	13	15	0	12	5	0
1852...	20,000	61.20	55.45	11	10	0	9	7	6
1853...	22,284	55.45	55.45	8	15	0	8	2	6
1854...	30,004	55.45	55.45	7	15	0	7	5	0
1855...	33,000	55.45	51.65	6	17	0	6	10	0
1856...	30,000	51.65	51.65	6	10	0	6	10	0
1857...	28,204	53.55	45.90	6	10	0	6	10	0
1858...	31,000	49.75	45.90	7	10	0	7	5	0
1859...	13,000	76.50	49.75	7	5	0	7	0	0
1860...	10,000	57.35	49.75	7	0	0	7	0	0
1861...	35,000	49.75	34.45	7	0	0	7	0	0
1862...	42,000	38.25	34.45	7	0	0	7	0	0
1863...	40,531	49.90	38.25	7	0	0	7	0	0
1864...	47,489	45.90	45.90	9	0	0	7	10	0
1865...	55,000	45.90	45.90	8	0	0	7	17	6
1866...	46,450	57.35	45.90	8	0	0	6	17	0
1867...	47,000	45.90	45.90	7	0	0	6	16	0
1868...	47,728	45.90	45.90	6	17	0	6	16	0
1869...	33,811	45.90	45.90	6	17	0	6	16	0
1870...	30,077	68.85	45.90	10	0	0	6	16	0
1871...	31,686	68.85	57.35	12	0	0	9	0	0
1872...	31,621	66.95	65.00	13	0	0	10	0	0
1873...	27,642	91.80	68.85	20	0	0	12	10	0
1874...	27,756	118.55	91.80	26	0	0	19	0	0
1875...	50,250	118.55	49.75	24	0	0	9	17	0
1876...	72,716	53.55	34.45	12	0	0	7	17	6
1877...	79,395	44.00	30.60	9	10	0	7	2	6
1878...	68,880	35.95	29.85	7	5	0	6	7	6
1879...	73,684	34.45	25.25	8	15	0	5	17	6
1880...	59,926	34.45	27.55	7	15	0	6	7	6
1881...	60,691	31.75	27.90	7	0	0	6	2	6
1882...	52,732	29.10	27.35	6	5	0	5	15	0
1883...	46,725	28.50	26.00	5	17	6	5	8	0
1884...	31,913	35.00	28.00	6	15	0	5	2	6
1885...	32,073	33.00	28.50	6	15	0	5	10	0
1886...	29,981	39.00	32.00	7	10	0	5	16	3
1887...	33,825	50.00	36.50	11	5	0	6	7	6
1888...	33,250	47.00	36.00	10	0	0	6	12	6
1889...	26,464	50.00	40.00	9	15	0	7	10	0
1890...	22,926	58.00	47.00	10	10	0	9	1	0
1891...	22,904	61.00	39.50	8	12	6	7	5	0
1892...	21,993	47.50	41.50	7	10	0	6	2	6
1893...	30,164	45.50	30.00	6	17	6	6	2	0
1894...	30,416	37.00	28.50	6	15	0	5	7	6
1895...	36,067	41.00	35.90	7	10	0	6	10	0
1896...	35,012	*40.00	*35.00	7	7	6	6	7	6

*New York.

Drugs, Old and New.

There have been many changes in the market for crude drugs during the past twenty-five years, and a comparison of the prices of to-day with those which ruled in 1873 will show a very marked decline in many instances over the old time figures. In the early days buyers from the interior appeared in the New York market in the autumn and in the spring, each time laying in a sufficient stock of goods to carry them over the season. Trade was more centralized, too, and the methods of communication were not so perfect as they are to-day, not only with the consuming trade, but with the sources of supply, hence the New York importers and jobbers were in a position to make substantial profits far in excess of those they claim they obtain to-day. It was not an uncommon thing to see the crude article quoted at 5c. and the powder at about 20c. a pound, but those palmy days have long since passed away. It was not necessary to sophisticate in those days, but to-day competition is so keen that a little manipulation is sometimes resorted to by some houses to increase their profits. It was not a difficult matter during the first decade of the life of the Reporter to successfully engineer a speculation in any of the leading crude drugs, and to maintain a corner for a considerable length of time, and in those days it was not an uncommon thing to report single sales to consumers of 25 to 100 bales of a single article which now sells in 1 to 5-bale lots.

Cuttlefish was an article of considerable prominence, but it is now scarcely mentioned. Owing to the perishable character of ergot in hot weather, many houses have handled it to their sorrow, and speculations in it generally resulted in a loss to those interested. The name cubeb will probably never be forgotten when speculations in many of the older crude drugs have passed from the memories of those connected with the trade. Up to July, 1878, this article had not been quoted above 9½c. a pound for several years, with the exception of October, 1875, when 10½c. was reached. In 1872 it was as high as 18c., but before the year was out had declined to 9c. In August, 1878, however, it jumped up to 20c., but soon declined to 15c. From this time on it was the subject of speculative manipulation, and the fluctuations were very wide. It was often cornered, and in October, 1881, we find the price at 75c. The following year it fluctuated between 18c. and 55c., and in 1883 between 35c. in February and $1.25 in December. In January, 1888, we find it quoted at $1.75, and until 1891 it did not fall below $1. In January of that year it was quoted at 55c. In February at 30c., but since then it has steadily declined, and during the last two or three years has occupied a very uninteresting position. Speculation has practically died, and the drug is governed by the law of supply and demand. Many will remember the sale at one of the Calls held when the Drug Exchange was in existence, which created considerable excitement at the time, owing to the extreme price paid and other attendant circumstances. One of the largest uses for the berry has been, and still is, in the making of cigarettes.

American saffron has shown wide fluctuation, owing to efforts that have been made periodically to control the market. In 1872 it was quoted at $1.45 in January, but declined to 75c. in July. The price steadily declined until 18c. was reached, in June, 1876. In the interim, however, there were one or two spurts that were of short duration. The market had an upward tendency during 1879 and 1880, 75c. having been reached in May of that year, but 25c. was quoted the first of the following year. In February 65c. was reached. In 1882 the fluctuations were between 35c. and 42½c. In October, 1887, 12c. was the quotation. In 1888 28c. was the price in January, and 15c. in June. During the next four years the fluctuations were between 20c. and 26c., but in January, 1893, the price was 30c., advancing to 75c. in March, and declining to 25c. in August. In 1894 40c. was the price in January and 25c. in June. In 1895 the extremes were 35c. and 42c., while last year the fluctuations were between 40c. in February and 25c. in September.

Curacao aloes was worth 25c. in 1872, and the demand was mostly for the other varieties ,but in October, 1879, increasing supplies had lowered the price to 9c. It hung around this figure, sometimes a little higher and sometimes a little lower, until November, 1885, when it touched 6¾c. In December, 1886, 5c. was reached; in December, 1888, 3¾c.; in April, 1889, 3½c.; in August, 1890, 2½c., and in December, 1891, 2c. Since then the price has been up to 8c. in January, 1892, and to 5½c. in January, 1894, but generally fluctuated between 2@3¾c. Most of that which comes here is purchased by the makers of aloin. There has been little of interest in the market for senna siftings. In 1872 the price was 10c. It fluctuated between 10c. and 15c. until 1876, when 20c. was reached in August. February, 1877, 25c. was reached, but in April, 1880, it had receded to 9c. In 1882 it fluctuated between 8c. in February and 18c. in July. In December, 1886, 29c. was reached, owing to the disturbed condition of Egypt. The price was carried up to 32c. in October, 1887, but in March, 1888, it had receded to 19c., and by June, 1890, it had touched 8c. In April, 1891, the quotation was 18c., and in February, 1893, 6c. Two years ago

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it sold at 5c., but in 1896 there was a little boom, owing to a threatened scarcity, when the price was worked up to 9½c. The consumption of senna has largely increased in the last few years on account of the great number of patent medicines into which it enters.

Ginseng is an article that has increased in importance, and while the exports during the last twenty-five years do not show an average increase to exceed fifty thousand pounds, the price has practically doubled. The only really important use for it is found in China, where it is considered by the Chinese as a panacea for all the ills that flesh is heir to. We find golden seal assuming considerable prominence about 1881. The opening price for that year was 8c. It had sold as high as 20c. four years before this date. In July, 1881, the price had reached 12c. There was a steady advance from that time to January, 1883, when 27c. was reached. There was a steady decline for the next few years, until 16c. was reached in April, 1887. In May the price had jumped to 35c., and in March, 1888, to 60c. From that time there was a gradual decline to December, 1891, when 20c. was touched. In April, 1892, it was quoted at 28c. The following year fluctuations were between 20c. and 23c.; in 1894, between 18½c. and 23c.; the following year, from 17¼c. in March to 22½c. in December, and in 1896, between 19½c. in September and 29c. in November, the year having opened at 22½c.

Senega root of the Minnesota and Manitoba variety appears to be in greater demand in Europe than it is in this country. Owing to the fact that it comes from one section of the country, it has often been the subject of considerable speculation. In January, 1872, the price was $1.15. The following year it was quoted at 65c. in June. The price had its ups and downs from that time on, and was invariably quoted at a lower price in June than any other month in the year. We find it as low as 45c. in July, 1878. From 1883 to 1886 the price fluctuated between 40c. and 50c. In December of the latter year it had reached 35c. In 1888 it opened at 45c., and the following year at 60c. It steadily declined from that date until June, 1890, when 32c. was touched. In January, 1891, it was up to 39c., but at the close of the year it was selling at 30c. A year later 57½c. was paid, but in August, 1893, it had reacted to 35½c. We find the quotation 27c. in October, 1894, and 24c. in July, 1895. The lowest price on record was reached in May, 1896, when dealers in New York quoted 21c., the year closing at about 29c.

Refined camphor was selling at 72½c. in January, 1872, but had declined to 33c. by the close of the year, and to 25c. in September, 1873. It reacted to 31c. in March, 1874, and dropped to 20½c. in May. In January, 1875, it was quoted at 30c., a year later at 25¾c; in January, 1877, at 33c., but there was a steady decline until 26c. was touched in October. The price ruled below 30c., and generally in the neighborhood of 25c., until January, 1884, when it touched 21c. In December of that year 16c. was reached; in March, 1885, 23c.; in November, 1888, 28c.; in December, 1889, 39c.; in June, 1890, 45c.; in December, 1891, 43c.; a year later, 50c.; in another year, 45c.; and in June, 1894, 37c. The year 1895 opened at 37c., but the price was carried up to 59c. in December, owing to a large speculation in crude in the London market. The speculation was a failure, and while 60c. was quoted in February, 1896, the market gradually weakened, 43c. having been reached in May, the year closing at 39c. for American in barrels. The feature of the market was the introduction of Japanese in pound cakes and one-ounce blocks in 1891, and the demand for this variety has largely increased. There have been times when German has been sold here, but this kind is not in favor with American buyers. There is a fair sale, however, for the English refined. In the early eighties, American compressed camphor was placed on the market, and in 1887 a New York refiner brought out an ounce cake to meet the growing demand for this style.

Gum arabic has with few exceptions pursued the even tenor of its way for many years. Up to June, 1881, the price of sorts fluctuated between 15 cents and 20 cents, with the single exception of May, 1879, when it declined to 13 cents. In June, 1891, 9½ cents was touched, but there was a steady advance until January, 1884, when 17 cents was reached. The year closed, however, at 24 cents, and from that time to December, 1885, there was a gradual advance to 40 cents. This was owing to a scarcity brought on by the stoppage of supplies incident to the war in the Soudan. The market fell off to 38½ cents in April, 1886, but reacted to 57½ cents in December. It held steadily at about 50 cents up to May, 1889, when there was a break to 45 cents. The Soudan had begun to be pacified, and the Egyptian variety once more began to make its appearance in the markets of the world. The war had brought out large quantities of East Indian insoluble gums, and the London market was overburdened with gum of this character, but most consumers had a preference for the Soudan variety. There was a steady decline in the price until 11 cents was reached in March, 1894. In 1895 the range was 14½ cents to 16½ cents, but in 1896 the price advanced from 14½ cents in January to 20 cents in March, at which price it has remained ever since. This last advance was due to the British advance up the Nile, the Government having determined to reconquer the Soudan.

In a speculative way shellac has been one of the most interesting articles on the list. In all its history scarcely a year has passed when the market has not been under the influence of speculative manipulation. Sometimes it has emanated from Calcutta, sometimes from London, and sometimes from New York. In so far as the New York speculators are concerned, we venture the assertion that few of them have ever made a dollar on their operations, in point of fact most of them have parted with a considerable amount of money. With statistics all in their favor, the market has gone against them, and they have often found themselves hoodwinked by the Indian merchants at the source of supply, who are themselves very shrewd manipulators. There has been very little speculation in this market for a number of years, and the trade is now in the hands of comparatively few firms America is the largest consumer of what is known as the "Marks," the bulk of all of the finer brands coming here. American houses usually purchase the contracts for a number of months of such marks as D C, V S O, Diamond I, etc.; Great Britain and the Continent usually taking T N and the native brands, although America is a large consumer of these. The highest prices on record were reached in the big speculaion of 1874-75, when D C sold at 85 cents in November, 1874. Previous to 1883 there was a 10 per cent. discriminating duty on all East India products that were not imported direct from the sources of supply. Most of the supplies came direct to New York in sailing vessels, but after the removal of that duty London began to compete for American business and the trade was materially changed. About five years ago steamers began to play an important part in the carrying trade of East India products, and large quantities were imported direct in steam bottoms, but of late it has been found just as profitable to purchase on through bill of lading, the goods to be trans-shipped at British ports. Americans have not been as liberal buyers in the London markets as they formerly were, and large shipments have been made from Calcutta direct to the Continent, hence the stock of shellac in London has of late years been materially lighter than it used to be, and it does not exert as decided an influence on the values in other market as it once did. There is now little or no speculation indulged in by the New York importers. This market is often the cheapest in the world, owing to keen competition for a business that is rapidly growing.

The sugar of milk industry has grown very rapidly during the last few years. A factory was established at Burlington, Vt., in 1882, but little or nothing was offered on the market. About 1889 a plant was established at St. Charles, Ill, but it was not until the passage of the tariff act of 1890 that the industry really began to grow. Up to this time the article had been admitted free of duty, and the bulk of the American consumption had been supplied from abroad. The act of 1890 placed a duty on the article of 8c. a pound. In January of that year the price was 15c., but by December it had reached 29c., American consumers having been heavy buyers in Europe, in anticipation of a duty being levied. Naturally the American market was affected in sympathy with the European market. The immediate effect of the duty was to stimulate manufacturing in this country. The price steadily declined, owing to heavy sales of imported and overproduction, until 8c. was touched in February, 1894. The tariff of that year contained a reduction in the duty to 5c. per pound. It was in 1892 that the Americans began to get control of the home market. From that time the imports showed a heavy falling off. In 1895 the price was 13c. in January; it was then reduced to 9½c. before the month was out, then to 9c. in April, and by December it had reached 16c., owing to the condition of the European and home markets. In February, 1896, it was quoted at 18c., but by July had declined to 11c., the year closing at 13c. Early in 1896 the export demand began to increase very largely, and during the year a large quantity was exported to foreign markets in all parts of the world, including the home of the industry in Europe. The American factories have several times increased their capacity, and will soon be in a position, under favorable conditions, to supply the world. As to the earlier quotations it may be well to mention that the average price to 1882 was between 30c. and 40c., with the exception of October, 1875, when it was quoted at 65c., and November, 1876, at 48c., at which it continued until April, 1879. From 22c. in December, 1882, no change was made during the year. In 1883 it was 22c. to 26c., but in 1884 it advanced to 28c., which it remained to April, 1886, when it declined 1c. In March, 1887 it was 19c., and remained this until November, 1888. There was a steady decline to 15c. in December, 1889. In December, 1890, it was 29c.

Norwegian cod liver oil has increased in favor of late years by the introduction of certain now well known emulsions. It is an article that has been largely speculated in, not only by the importers but by the exporters from the Norwegian ports. The price has been as low as $18.50, in January, 1891, and as high as $110, in March, 1884. It has fluctuated between these two figures, and has been governed by the law of supply and demand and speculative manipulation. The last twelve years has witnessed a revolution in the refined glycerine business, owing partly to the new processes for recovering glycerine from soap lye. The American industry has grown enormously during this period, at the expense of the imported. There has been a steady improvement in the processes for refining the crude, so that to-day the American C. P. glycerine is superior to any made in the world. The importations of refined have steadily declined since 1886, although they showed a recovery during the past year. Refined was generally quoted above 20c. until 1884, when the price reached 15c. in December. The following year it did not go above 15½c., the year having opened at 14½c. In 1886 it reached 24c. in December, but a decline set in in February, 1888, when 17½c. was reached in November. It had reacted to 21c. in February, 1889, but declined to 11c. in August. In 1890 the year opened at 18c., but by December the price had reached 16c. The next year was an uneventful one, and the year following the fluctuations were between 18c. in February and 13½c. in October. In 1893 the price was steady throughout the year at 13@ 13½c. In 1894 there was a drop to 11½c. in June, but in 1895 the market advanced to 17c. in December from 11½c. Jan. 1. This was owing to an advance in the crude in Europe, due to an increased demand for dynamite and other purposes, and to a decreased supply caused by the introduction of the electric light, which had come into quite general use in place of candles. The year 1896 opened firm at 16½c. An advance to 17c. occurred in February, but the year closed at 16½c. in barrels.

Cascara sagrada was introduced in 1877. It met with considerable opposition, but was finally incorporated in the Pharmacopoeia of 1890. The supply seems to be unlimited, and the price for new crop bark is about 3½c. Menthol had not attracted much attention outside of Japan until 1879, but it was not until 1882 that it began to be imported into this country in any quantity. In 1886 we find it quoted at $9 a pound. At the close of 1896 it was down to $2.50 a pound. The price has fluctuated materially, owing to natural causes and speculative manipulation. Not long after its introduction here menthol cones became very popular as a convenient form for carrying a headache remedy in the pocket. The price of copaiba balsam has invariably been influenced by supply and demand. Considering the manner in which the balsam is gathered, an average yield is not always to be depended upon, and it has been noticed that at times the shipments from the primary markets have depended on the price ruling in New York. Whenever the price has advanced very materially here shipments have increased, only to decrease when the price has reached a point that shippers considered unremnuerative. There has always been more or less sophistication practiced, but of late years a pure balsam has been in more demand than formerly. Large quantities of gurjun balsam, or East India wood oil, have been imported, and this oil has been used as one of the adulterants. We find the price of copaiba at 69c. in January, 1872, $1. in April and 45c. in July. The year 1873 opened at 50c. The price was 16c. in February and 85c. in July. In August, 1874, it had declined to 69c., and in October, 1876, it was as low as 43½c. In December, 1877, it had touched 27c., while in December, 1879, 67½c. was reached. In December, 1884, it was 38c. It ruled below 40c. until 1887, when it touched 56c. in December and 70c. in February, 1889. It was as nigh as 80c. in June, 1891, and as low as 45c. in December. In July, 1892, it had dropped to 33c., but was up to 38c. in December, 1893. A year later it was 32c., and there was no material change in the price until early in 1896, when it began to work upward, owing to decreased shipments The year closed at about 50c. for the Central American variety, with the tendency still upward.

We find balsam of tolu at 80c. in January, 1872, and 45c. in July. In September, 1873, it reached $1 per pound, from which it declined to 70c. in January, 1874, only to advance to $1.20 in October of the same year. In January, 1875, it had reached $1.35, but dropped to $1.05 in April, only to react to $5 in October. This was due to decreased supplies and to speculation. Supplies began to arrive, and the market steadily declined until $1.35 was reached in February, 1876, after which there was an advance to $2.50 in August. The market began to break in February, 1877, and reached $1 in October. In March, 1878, 70c. was reached, and this continued to be the quotation until the following January, when another decline set in, and 50c. was reached in May, 1879, the market advancing to 85c. in October; then it fell off gradually to 55c. in June, 1880. In October it had reached 67½c. In the year 1881 the fluctuations were between 65c. in September and 45c. in December, the opening having been at 57½c., after which there was a steady decline to 47c. in June, the market reacting to 65c. in September. There was no appreciable change in the three following years, but in December, 1884, 38c. was reached, and the market steadily declined until July, 1886, when the price reached 30c. It hung around this price until June, 1888, when it touched 29c. Although it advanced to 34c. in October, it reacted to 28c. in August, 1889, and with slight fluctuations declined to 25c. in April, 1891. The year closed at 30c., but the price had declined to 22½c. in July, 1892. In 1893 it fluctuated between 23c. and 26c.; in 1894, between 24c. and 27c., but the year 1895 opened at 40c. There was a drop to 26c. in February and an advance to 50c. in December. The market declined to 45c. in March, 1896, but advanced to 65c. in September, the year closing at 50c. The reason for these phenomenally low prices the past few years was a large supply and a decreased demand.

The market for Angostura tonca beans has been the subject of wide fluctuations from year to year, based on the peculiar conditions which have always obtained in this particular article. It has been the rule every third year that there was a large crop, the two succeeding years being comparatively small, hence the price has usually been low with a large crop, and has advanced as the supply here decreased. The shippers at the source of supply have very often manipulated the market to suit themselves, and at times a monopoly of the business has been secured from the Government of Venezuela. We find the price quoted at 55c. in January, 1872. In March it had reached $1.25. It remained above $1 until 1874, when the price was 85c. in June and 95c. in September. Fluctuations were wide in 1875, the year opening at 90c., the price declining to 50c. in March, advancing to $1 in February and to $1.50 in November. In 1876 there was a steady advance from $1.50 in January to $2.25 in May. The following month it dropped to $1, owing to the arrival of the new crop, and continued to decline until 60c. was reached in August. In January, 1877, it advanced to 80c., by February had dropped to 50c., only to advance to $1.20 in May, at which it remained until February, 1878, when it declined to $1.10, advancing to $1.65 in December. It remained at this until May, 1879, when it declined 10c., advancing in April, 1880, to $2.25. We find the price in January, 1881, at $1.95 and $3 in

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SHADYSIDE ON HUDSON.

June. The year 1882 opened at $2.50 but $1.20 was quoted in August. In April, 1883, $1.15 was the quotation, and in August $2.25. Fluctuation in 1884 were between $2 in June and $1.35 in December, the year opening at $1.70 and advancing steadily until $2 was reached. In 1885 the price fluctuated between $1.20 in April and $1.50 in November. In 1886 the highest price was $1.70 in April, the lowest $1.30 in December. There was no change in 1887 or in 1888, except that the price dropped to $1.25 in February. The year 1889 opened at $1.30 and closed at $1.40. In 1890 the price advanced to $2 in April, but was $1.75 the beginning of 1891. We find no material change until July, 1892, when it advanced to $2.10; in October to $2.25. The year 1893 opened at $1.90, but in February the price had declined to $1.75. In January, 1894, the price was $1.90, in June $2, but by December it had declined to $1.25. The year 1895 opened at $1.85, but the price declined to $1.25 before the month of January was out, advancing to $2.50 in December. The year 1896 was a banner crop year. The crop was the largest on record, amounting to 525,000 pounds, most of which was held at the close of the year by the one house that imported it. The opening price was $2.50, but there was a steady decline until $1.75 was reached in December, which was the closing price of the year.

The feature of interest in the seed market is the large speculations that used to be engineered some fifteen years ago, and even to a later date. It was no uncommon thing for thirty thousand bags of canary seed to change hands in two or three days, but those days have long since passed away, owing to the change that has taken place in the methods of doing business. Up to 1882 the prices of canary, hemp and rape were quoted by the bushel, but in that year all of these seeds commenced to be quoted by the pound. The peppermint oil market is one that used to witness considerable speculation. Year after year there would come, in the early spring, reports of damage by frost or heavy rains and later reports of drouth. Dealers and speculators took advantage of these reports to work the market. Latterly, however, this article has been as dead, speculatively, as many others that were once prominent. The highest price bottled oil appears to have reached was in April, 1875, when $6 was quoted; the lowest price was in the autumn of 1896, when sales were made in the New York market at $1.60.

In the Chinese oils of anise and cassia, there used to be considerable speculation, and it was not uncommon to hear of three and four hundred cases changing hands—especially the former variety—in two or three days. This was at a time when New York merchants were in a better position than they are to-day to control the market. The change in conditions under which business is now done make a repetition of these transactions practically impossible. To-day there is as much excitement if twenty-five cases change hands as there used to be when three hundred cases changed hands. The highest price on oil of anise in the last twenty-five years appears to have been $3.60 in March, 1872, and the lowest price is $1.37½, in August, 1892. On oil of cassia the price varies so, according to test, that it is impossible to give a quotation that will mean anything. The highest price appears to have been $2.37½, in January, 1872; the lowest, 60c., in December, 1886. Oil of sassafras was quoted at 95c. in 1872, but increasing supplies soon forced it to a lower level, and after 1875 it was rarely above 50c., falling to 33c. in July, 1878. In November, 1881, it was quoted at 60c., and until 1888 ruled along in the thirties until November of that year, when it reached 70c., only to drop to 36c. in May, 1889. In the early eighties the artificial variety was introduced commercially and continued to grow in favor, so that to-day about a can of the natural is sold where fifty used to be sold. Oil of wintergreen was as high as $5.50 in March, 1874, while to-day it is quoted at $1.15. When the artificial was introduced it was held at $1.60; to-day it is quoted at 40c., the patents having expired and competition among the makers having become very keen. There is more demand for the true oil of birch than there used to be, but a considerable quantity is sold mixed with the artificial, and also of straight artificial for true oil.

Vanillin was introduced in 1874 as a patented article, and for a number of years the price was $5.50 per ounce. The first break came about two years ago—say, January, 1885—when a reduction was made to $5. September, 1896, the price dropped to $4, and has since declined to $2. Cocaine was first crystallized in the United States by Parke, Davis & Co. In 1881 they had a two-kilo bottle of the alkaloid, which was put in the safe every night. It was such a curiosity that everybody interested who happened to visit the city paid them a call. Interest largely centered on the fact that the alkaloid was worth $1.25 a grain. The price to-day is $2.50 per ounce. Salicylic acid we find quoted at $1.65 as late as 1886. In 1888, or thereabouts, the German patents expired, when a syndicate was formed to maintain the price. At first several firms started in the manufacture, and competition for the business caused a decline in the price of about 20 per cent., but immediately the combination was formed a steady market was secured and the price was steadily maintained down to May, 1894, when it was determined to drop the price, in view of some outside competition that had been of some annoyance to the combination. The bulk price was fixed at 97c. It remained at this price until January, 1895, when it dropped to 56c. in 500-pound lots. Since then the price has gradually declined, until 35c. closed the year 1896. The business is said to have become unprofitable to those engaged in it, and it is believed that old-time prices will never again rule.

Caffeine has attracted considerable attention of late years, owing to the large demand for headache remedies. The selling price in 1885 was $19 per pound; in 1886, $15; in 1887, $10; in 1888, from $10 down to $4.50. In 1889 the highest price was $4.50, and the lowest $2.50. In 1890 the market declined from $2.50 to $2.05. In 1891 sales were made at $2 and $1.75. In 1892 as low as $1.65 was reached before the market commenced to advance toward the $2.30 mark. In 1893 the lowest price was $1.95, and the highest and closing $2.40. Up to about 1891 all the caffeine of commerce was made in Germany, though the tea sweepings were obtained in England. The British Government, ever ready to protect its revenue, refused to allow the tea sweepings of the warehouses to be sold in England for fear of their being used for consumption in place of the leaf, and the Exchequer thus defrauded of a certain amount of revenue. All sweepings were shipped abroad and sold principally to Germany, but English chemical manufacturers protested so vigorously that the Government expressed a willingness to permit their use in England provided they could be rendered unfit for domestic use. A scheme was hit upon whereby they were rendered unfit for making anything but caffeine, through an admixture of asafoetida, and the manufacture of this very important drug commenced in London. One German manufacturer remained in the business. In January, 1894, the price quoted by manufacturers was $2.30. Early in July it advanced to $2.65, owing to scarcity. This price was quoted by dealers, the contract price remaining unchanged, but manufacturers were forced to advance to $4.55 before the close of the year. Early in 1895 the price quoted by second hands began to stiffen up, and small lots were sold as high as $9@10 in April. The price steadily declined until $6.50 was reached at the close of the year. The year 1896 opened at $6.50, but soon declined to $6, and by the middle of February to $5.50, at which the year closed. For the past year or so caffeine has been made in this country at a plant in New Jersey, the tea sweepings having been imported from London.

During the last few years the coal tar drugs and fine chemicals have come into prominence, among which we may mention phenacetine and sulphonal. The former was put on the market in July, 1888, and the latter in October, 1888. They are both patented articles, and the patentees are kept busy securing evidence against druggists in all parts of the country who sell phenacetine that has been imported from Canada and been sold to them at a much lower price than that asked by the agents of the patentees. Altogether about sixty-five suits for infringement have been brought against various parties. Considerable smuggling has been indulged in.

Acetanilid became prominent in the early eighties, and has become one of the most prominent of the articles of its character. Its price is based on the price of aniline oil, from which it is made; and that, in turn, depends on the ondition of the benzole market in Europe. In 1896 there was a rapid advance during the summer, from 26c. to 37c., which was the price at the close of the year.

Glucose.

The manufacture of glucose has undergone as great changes as those of any other industry. Say fifteen years ago, it was comparatively a small industry. To-day it consumes, possibly, from eighty to one hundred thousand bushels of corn per day. Its uses are well known, the chief consumers probably being confectioners and brewers. The most important works are located in the West, principally at Peoria and Chicago. The price of this article has lowered vastly, as has, fortunately, the cost of manufacture. The yield from a bushel of corn to-day is very much larger than it was ten years ago, when 33 pounds to a bushel was considered a good yield. To-day it is commonly made to yield 39 to 40 pounds. In addition to this, the feed product, which is what remains of the corn after the extraction of the starch and oil, has become very much improved and in a very much better position for sale. Furthermore, large quantities of oil are now extracted from the germ of the corn, and this, together with the feed, have made the by-product of such vast importance that the cost of glucose itself has been greatly lowered.

The Wood Alcohol Industry.

It is a marvelous statement, but true, that over 60 per cent. of wood may be converted into liquid. The strongest hydraulic pressure would not produce a result of half of one per cent. in moisture from dry wood; but by putting the same material into an iron retort and converting it into charcoal by means of heat from beneath the cylinder the gases and smoke, to the extent of fully 65 per cent. of the weight of the wood, may be condensed into a liquid called pyroligneous acid (from pyro, fire, and ligneous, wood), and from it are obtained wood alcohol, acetate of lime and wood tar.

Chemical works for the manufacture of wood alcohol are necessarily built in a heavily wooded district, and generally consist of 24 iron retorts holding about one cord of wood each. These are built in a battery, and heated from beneath by natural gas, charcoal or coal, whichever is the cheapest fuel. The retorts are filled with dry wood once in 24 hours, fires are then lighted beneath and the wood in the retorts is carbonized. The smoke and gases force their way out through pipes, which lead to condensers.

One cord of wood weighs 4,000 pounds, and when carbonized the vapors produce about 2,650 pounds of pyroligneous acid and 700 pounds of charcoal, the remainder of the weight consisting of uncondensible gases. The pyroligneous acid from one cord of wood produces 9 gallons of 82 per cent. crude wood alcohol, 200 pounds acetate of lime and about 25 gallons of tar; 35 bushels of charcoal are also secured from each cord of wood.

After the pyroligneous acid is neutralized with lime the wood alcohol is distilled off, the lime holding the acetic acid in solution. After the separation of the wood spirit the remaining liquid is boiled down in open pans to a sugar, which is dried and becomes the acetate of lime of commerce. Acetate of lime is used for making acetic acid.

The first wood alcohol factory built in this country was at Conklin, N. Y., in 1860, and since that time the industry has steadily grown until at present there are eighty factories, employing over 10,000 men, and with a capital invested of over $7,000,000.

Fully three-fifths of all the wood alcohol and acetate of lime produced in the world are made in the United State. The present production of crude wood alcohol is about 2,500,000 gallons per annum, of which 10,000 barrels, or 500,000 gallons, were exported during 1896; and the remaining 2,000,000 gallons of crude spirit yielded about 1,500,000 gallons of refined wood alcohol, which was used in the arts and manufactures in this country.

The wood alcohol works are situated mostly along the border line between Pennsylvania and New York, and in Michigan, though there are several in Tennessee, one in Alabama and one in North Carolina.

Over 300,000 cords of wood are used per annum in the manufacture of wood alcohol and its kindred products. About 20 cords are obtained from an acre of woodland, and, therefore, 15,000 acres per year are cleared. About one-half of this is situated on the sides of the mountains and cannot be used for farming purposes, but the remaining half becomes the best of farming lands.

There has been considerable comment on the destruction of the forests for the manufacture of wood alcohol, but Delaware County, N. Y., alone, with its 1,557 square miles, if it were heavily wooded, would give all the wood for 75 years necessary for the wood alcohol business.

Wood alcohol affords a perfect substitute for grain alcohol for manufacturing and mechanical purposes, and at less than one-third the cost. The art of refining it has been a steady progress, until at present the 95 per cent. wood alcohol of commerce is not nearly as disagreeable in odor or to work with as turpentine and many other liquids largely used in manufacturing. A considerable quantity of absolutely pure methyl alcohol is also made.

No matter how well it is refined, wood alcohol cannot safely be taken internally or be used for the manufacture of articles for human consumption, except where in the preparation of the product it is evaporated or recovered.

Wood alcohol is principally used as a solvent in the manufacture of shellac varnish, but it is also used in the manufacture of celluloid, photographic paper, for burning and for innumerable other purposes. Some of the most beautiful and delicate colors in the form of dyes can only be obtained from wood alcohol. It is antiseptic in its effect, and is used largely in the manufacture of liniments for "man and beast" and for rubbing in bath-houses.

Unless destroyed by adverse legislation, the wood alcohol business will eventually become a most important one, and practically the entire production of both wood alcohol and acetate of lime in the world will be in this country.

Twenty-Five Years in the Chemical Trade.

There have been many changes in the chemical trade during the past twenty-five years, and not the least of these are the changes that have been made in the personnel of the firms engaged in this branch of business. When the Oil, Paint and Drug Reporter was in its infancy Pine and Cedar streets were lined with the counting rooms and offices of importers and brokers, the overflow from these streets being accommodated in the buildings on Pearl and William streets, not to speak of the scattered offices in other downtown localities. The business then was distributed, and every man engaged in it was an independent factor. There were no combinations with special agencies; or if there were such agencies, they had to take their chance with the others. The foreign makers had little to fear from American competition. There were few manufacturers on this side of the Atlantic, and they were struggling, in most instances, to introduce their brands, often at a price that hardly secured them a living profit.

Few of the numerous houses then engaged as importers and commission firms remain, and of these the make-up is so changed in most cases that it would be difficult for any one who had known them in the old days and returned after twenty years' absence to find a familiar face in office or counting room.

Of the changes that have occurred during the past quarter of a century, perhaps one of the most important has been made in the substitution of one class of goods for another in certain processes of manufacture. Alkali in those days was scarcely recognized as a specific term. Carbonated ash made by what is now spoken of as the old process was the only form of alkali apart from caustic soda, that was known to the trade. The larger consumers, in placing their orders, invariably called for 48 per cent. carbonated ash, or high test, according as the requirements of their trade necessitated. Ammoniated ash was scarcely known then, and not for some years later did it become an important factor, as will be shown subsequently. New processes in the manufacture of paper called for a change in the method of manipulating the raw material, and the producers, finding that better results could be accomplished by substituting caustic soda for soda ash, the change was made, though at the present time some of the papermakers still use ash in their processes.

Ordinary conditions of supply and demand governed the market for many years during which the gold standard was the basis of all circulations with reference to stock to arrive, while in a majority of instances the spot transactions were on a currency basis. This resulted in a remarkably wide range of prices, which would be most embarrassing to any one who might have gone into the business without any previous knowledge of the conditions

PURE ALKALI

Manufactured by the Ammonia Process

BY

BRUNNER MOND & CO.

LIMITED

B.M.&Co. TRADE MARK

Northwich England

B.M.&Co. TRADE MARK

THIS ALKALI contains 58⁵⁰ deg. Alkametrical Test and is the most economical form of soda known for the manufacture of Glass, Soap, Paper, Wood Pulp, Starch or Colors. And for Cleaning Wool and Bleaching. In fact, for any purpose where Soda in its purest form is required

Its Strength is Uniform and Quality Always the Same

We are in constant receipt of this article, packed in casks and bags at the ports of

New York
Boston
Philadelphia
Baltimore
and New Orleans

We have appointed as Sales Agents for their district,

LINDER & MEYER, BOSTON

For New England States.

HOLLINGSWORTH & PETERSON

PHILADELPHIA.

We are prepared to make contracts for forward delivery.

WING & EVANS

22 William Street, New York

Sole Agents for the United States

which confronted the trade prior to the resumption of specie payments. The seller had to calculate his cost in gold, which was then at a high premium, and in many instances figured up his profits in currency, owing to the then unstable condition of business in this country.

It should be understood that this was only a few years after the close of the War of the Rebellion, when the country was recovering from a great shock and when business was in a most uncertain way, collections being difficult, in spite of the so-called good times which followed the declaration of peace between the North and the South. Business enterprises, which had long been paralyzed during the progress of the war and the period of reconstruction following it, were in such an uncertain state that even at the time when the Oil, Paint and Drug Reporter first made its appearance, fully seven years after the war was ended, there was a good deal of hesitation on the part of importers and dealers generally to acept orders not accompanied by cash from buyers whose financial standing was not considered to be of the best. In transactions with Southern merchants credits were most carefully scrutinized, the standing and conditiondition of the would-be buyer being most minutely investigated before the order was accepted. All this, of course, tended to complicate methods of business in a degree hardly to be appreciated by present day merchants, and involved an immense amount of money and labor.

Thus for many years following the close of the struggle between the North and the South, and for some time after, the Reporter appeared as a chronicler of events in the chemical and kindred fields of business, trade conditions were in a most unsettled state; but in the mean time American manufacturers had been making progress. They had made many improvements in their processes, thus improving the quality of their goods, and by persistent effort had succeeded in widely extending their market, not only in the East, but in other sections of the country, notably in the West. At this time the home manufacturers confined their attention chiefly to bicarbonate and sal soda, but before 1883 they had began to be formidable competitors of the foreign producers in other lines, and from that time forward they have made steady strides, until at the present day they supply about one-half of the quantity of the heavy chemicals consumed in this country.

The first issue of the Oil, Paint and Drug Reporter appeared on Oct. 18, 1871, and at that time trade in heavy chemicals was depressed, in common with other lines, by the high rates for money. The quotations at this date of the heavy chemicals were 2.70c. for soda ash, 4.87½c. for caustic soda, 2⅛c. for sal soda, 4½c. for bicarbonate of soda and 4.25c. for bleaching powder, all but the latter being quoted in gold. These were the ruling prices for the balance of that year, the market reports in succeeding issues showing only a moderate volume of trade unrelieved by the display of speculative interest in any of the various heavy goods. In the meantime the premium on gold had been declining owing to liberal disbursements by the Treasury and the continual advance in American securities abroad, and the steady tone of the chemical market was therefore all the more remarkable, as the weekly reports up to the last week or two of the year indicated a very quick condition of trade. Toward the end of January there was a decided increase in the demand for forward shipments, but the spot market remained dull. A reaction in the gold market during the first week in 1872 strengthened the tone of the market. Buyers were placing contracts for ash over the first six months of the year, and in some cases for delivery throughout the year, and in other lines there was a corresponding degree of activity. Prices began to advance, soda ash going up to 2.85c., gold, on the spot. Caustic soda sold at 5.32½c., gold, and bicarbonate soda at 4.70c., while sal soda and bleaching powder, for reasons not specified in the reports, dropped to 2.10c., gold, for arrival for the former and 4 3-16c., currency, for the latter. Gold continued to advance, affecting the price of all important commodities up to the 1st of February, when a drop in the former occurred, but lasted only for a short time, and the temporary weakness in chemicals gave place to a firm and advancing market. Thus the market, influenced by the fluctuations in the gold premium, continued to rise and fall with little reference to the conditions of supply and demand. The highest price for soda ash was reached about the middle of April, that year, when quotations advanced to 3½@4c., according to brand. Bicarbonate of soda, with occasional periods of depression, owing to increased supplies and dull trade, had an advancing tendency throughout the year, never going below 4.75c. and closing in December at the highest figures—6⅛c. Sal soda reached its lowest point, 2.75c., in January and its highest, 4½c., in March.

The year 1873 opened with a dull and uninteresting market, there being no disposition shown by buyers to take hold of either spot stock or goods to arrive. Prices in most lines favored the buyer. Bleacing powder was offered at 3 1-16c., gold, or 3¾c., currency, soda ash at 3c. gold, caustic soda at 6⅜c. gold and sal soda at 2⅛c. gold. Trade generally improved during the month, but prices remained about stationary. Freer arrivals of ash on a comparatively quiet market caused an easier feeling during February and March in soda ash, prices for which gradually dropped to 3.20c. gold for Newcastle and 3.25c. for Liverpool to arrive. April opened with a dull and declining market. Ash was arriving freely, and there was considerable pressure to sell. Caustic soda and sal soda were both easier, and bicarbonate was extremely dull, though in small supply. Bleach dropped to 3⅜c. gold, and sold sparingly at that. Arrivals continued free during the month, and prices continued to decline, owing to the absence of demand. At the close of April ash was quoted at 2⅞c., sal soda at 1⅞c., caustic soda at 6½c., bicarb at 5⅞c., and bleaching powder at 2⅞c., all gold. The last mentioned was the subject of considerable speculative attention, but owing to liberal supplies prices remained depressed. Throughout the month of May there was no improvement, either in demand or prices, though caustic soda was somewhat steadier, owing to lighter arrivals. Sal soda in the mean time declined to 1.82½c., and bicarb to 5¾c. Bleach about held its own, but ash was still declining, and the most popular brands were readily obtainable at 2½c. Throughout the summer months the market remained quiet, and as there were, particularly in September, free arrivals by sail, the downward tendency of prices was emphasized. At the beginning of October ash was quoted at 2½c., gold; sal soda at 1.95c., gold; bicarb at 5¾c., gold, and bleaching powder at 2¼c., gold. Trade in caustic soda improved somewhat during the next few weeks, and prices hardened, but other lines were neglected and the feeling was easy. At the beginning of November trade began to show improvement in all lines except ash, which was reported as being "unusually quiet." Arrivals of all kinds had fallen off, and this helped to increase the feeling of confidence which was beginning to manifest itself. All this time gold had kept at a premium, ranging from 8⅛c. to 11c., and the changes in market values were due more to the fluctuations in the precious metal than to condition of supply and demand for the chemicals. The increase in trade was short lived, and during the balance of the year the market remained quiet, though there was a slight increase of buying interest during the last two weeks of December, which sent the price of caustic soda up to 5¾c., gold, and bleach to 2.44c., gold. The other goods meantime had continued to decline, and closed the year at 2½c. for ash, 1¾c. for sal soda, 2½c. for bleaching powder, and 5½c., gold, for bicarbonate.

At the beginning of 1874, with a considerable increase in the demand for stock for forward shipment, a decided improvement in the tone of the market occurred, and during January the tendency of prices was upward, though there was little quotable change in prices. With February the demand subsided, and prices eased off somewhat. Arrivals of ash were large, and sales were made as low as 2¼c., gold. Sal soda was quite firm at 1.85c., but caustic soda was rather weak at 5.70c. Bleach sold in a small way at 2⅝c. These were all gold prices. At the begining of March there was a decline all around, owing to steamer arrivals and dull trade. No improvement occurred during the month, and the close was easy at 2¼c. for ash, 5¼c. for caustic soda, 1.65c. for sal soda, 5 5-16c. for bicarb, and 2½c. for bleaching powder, all gold. Toward the middle of April trade began to revive, but as spot stocks were liberal there was no material improvement in prices. Buyers' wants were soon satisfied, apparently, as during the last half of the month the market was reported quiet. Small arrivals during the first three weeks of May admitted of the cleaning up of surplus stocks to some extent. A better feeling was developed which, however, was dissipated toward the end of the month by large receipts from the other side. At this time the gold quotations were 2¼c. for ash, 1.60c. for sal soda, 5¼c. for caustic soda, 3c. for bleach and 5⅛c. for bicarb.

For the next three months there was little change in the situation, except that something of a spurt occurred in the market for sal soda about the beginning of July, and the market stiffened. At this time bleaching powder also was selling more freely, but at easy prices. September opened with the market inactive. The gold prices then quoted were 2⅝c. on ash, 5⅛c. for caustic soda, 1.67½c. for sal soda, 5¼c. for bicarb and 2¾c., currency, for bleached. Commenting on the situation, the Reporter at this date said: "Only one of the five principal chemicals pays a fair commission, and the others bring about cost or make an actual loss for the importer." The dull conditions and downward tendency continued up to the middle of November, when the demand improved somewhat and a better tone developed. In the meantime prices had declined to 2⅛c. for ash, 4⅞c. for caustic, 4.95c. for bicarb, 1.65c. for sal soda and 2⅝c. for bleach. During the next six weeks there was little or no change in the situation, the year closing with a dull and depressed market, and there was no improvement up to the middle of the following March, when buyers came into the market for considerable quantities of ash and caustic soda, paying 2 3-16@2½c., gold, for the former and 4.45@4½c., gold, for the latter. The tendency of sal soda and bleach was still downward, the first mentioned selling in a small way at this time at 1½@1.55c. and the latter at 2.20@2¼c., both gold. At the beginning of April more inquiry was noted, and a better feeling was reported, but there was no improvement in quotations. This, however, was counteracted by the failure of demand to materialize and accumulating stocks. Week after week the market was reported dull and depressed, and at the beginning of June prices were down to 1.90c. for ash, 142½c. for sal soda, 4.56¼c. for caustic soda, 4⅝c. for bicarb, and 2c. for bleaching powder, these, of course, being gold quotations. There was little hope for a change for the better during the summer, for, as usual in those times, the selling season was in the spring and fall. Yet during June prices for sal soda gradually advanced, owing, probably, to the prospective shortage, caused by the shutting down of production during hot weather. At the end of that month sol soda was generally quoted at 1½c., but by the end of August the price was back again to 1.45c. During the preceding month prices dropped on caustic soda to 4.45c. on bleach to 1¾c., but ash remained at 2c. Toward the end of December the high prices for all soap greases, and that combination of the Eastern writing paper manufacturers, for the purpose of shutting down production for the balance of the year, caused still lower prices on the heavy chemicals. Newcastle ash was freely offered at 1.95c., gold, spot, and Liverpool at 1.97½c., gold. Caustic soda was quoted at 1.97½c., gold; sal soda, at 1.31¼c., gold; bleaching powder, at 1¾c. and bicarbonate, at 4¼c.

During the next two years there was comparatively little change, either in the condition of supply and demand, or in the quotations, the market during most of that period being in favor of the buyer. Then came the resumption of specie payments, in 1879, followed by the "boom," which began toward the end of that year, and continued into 1880. Gold quotations were, of course, dropped. Bicarbonate of soda during 1879 went up to 3½c. The highest price touched by soda ash was 2c., and sal soda at one time sold at 1.30c. under the influence of boom times. Caustic soda sold in December as high as 3⅞c. and bleach at 1.70c., and these were about the figures generally quoted at the close of the year. In the meantime the market had been extremely active in a speculative way, large blocks of goods being purchased on the spot and to arrive.

While the general business actively continued in 1880, chemicals had their full share of it. Prices began to advance early in the year, and continued their upward course until May, when the demand began to fall off, and, under pressure from speculative holders to realize, a reaction set in. That was practically the end of the inflated period. Early in May prices for soda ash dropped to 1.60c. for 48 per cent., but went up again a few points during the month, only to drop back again when the dull summer season began. In June the price was down to 1.45c. When October was reached, and the fall trade was expected to set in, the market was dull and weak, especially on ash. November of that year showed very little improvement, but in December trade showed some improvement, particularly for forward shipment, though prices did not improve. At the end of the year ash was selling at 1.45c., caustic soda at 3½c. for 60 per cent., sal soda at 1.10c. and bleaching powder at 1.30c. on the spot. During 1881 the fluctuations in the prices of chemicals were not of particular importance. The trade in this country being overstocked as a result of the rather wild speculation during the previous year, it was some time before an equilibrium was maintained. In the meantime manufacturers refrained from urging sales in this market, as they found that every effort to do so only caused a further shrinkage in market values.

By the end of 1881 the surplus stocks had been pretty well used up. Arrivals were light, and although buyers showed some indifference, prices were on a fairly steady basis, ash being quoted at 1.55c. for 48 per cent. Liverpool and 1½c. nominally for Newcastle brands. Alkali, which had become something of a feature in the market at that time, after its introduction in 1879, was held at 1.35c. The quotation for caustic soda was 3⅝c. for 60 per cent., and bicarbonate was held at 3⅞c. Sal soda was then in full supply, and rather easy at 1.07½c. on the spot, though for arrival somewhat higher figures were demanded. Bleach was dull and nominal at 1.32½c.

About this time it began to be questioned whether the processes of manufacture employed in the production of soda were adequate. The London Times spoke of the industry as a dying one, and some of those interested in it felt called upon to deny this sweeping assertion. At a meeting of the English Chemical Society, held early in 1883, the conditions and prospects of the soda industry was very thoroughly gone into. By that time it should be understood that the old Leblanc process had met, and it might be said was already conquered by the new ammonia methods of making ash, and had also to encounter the competition of a growing industry in the United States. At the meeting above referred to it was attempted to be shown that the Leblanc process was not in a dying condition, though it was admitted that in recent years manufacturers had suffered a considerable loss. Of twenty-five works which had been in operation in the neighborhood of Newcastle up to that time only thirteen were in operation, and some of these were being dismantled, the proprietors despairing of ever being able to resume business on a profitable basis by the Leblanc process. The decadence of the old-time processes was due to the newer ammonia method, which even then consumers knew little about. They were satisfied to get their goods at less money, and were not enough interested to inquire the reason. Although the ammonia process of production was no new thing, having been introduced some seventeen years before, by M. Solvay, it had only just begun to make its influence felt. M. Solvay's success, it was said, had been such as to induce others to enter the field. In 1882 the output of ammonia soda on the Continent was increased 100,000 tons out of a total of 275 tons by both process. In this same year an authority came out with a review of the process of manufacturing caustic soda, which had a considerable influence upon producers. He reviewed the industry from its inception at the St. Rollox Works in Glasgow in 1844, and carried it down to 1872, when the processes now in vogue were adopted, showing the different stages by which the methods of manufacture advanced toward the present state of perfection. The strides made toward the perfection of the ammonia process of making soda ash begun to have a decided influence upon the market at this time, and were the chief incentive to the amalgamation of manufacturing interests, which later led to the formation of the United Alkali Company, which occurred only a comparatively short time after this, as a result of active agitation of the question of loss of profits in the alkali trade during 1883 and the following year or two. In the meantime the increasing competition, both from the Solvay people on the other side and from the domestic manufacturers, had been causing a shrinkage in market values. We find that in the last week of December, 1883, 48 per cent. carbonated ash was quoted at 1.55c., and Newcastle carbonated ash at 1.52½c. Alkali, by the ammonia process, which was then beginning to command considerable attention, was held at 1½c. For 60 per cent. caustic soda the quotation

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was 3¼c.; sal soda was firm at 1⅛c., and bleaching powder at 2.40c., the comparatively high prices for the latter being due to scarcity. American bicarbonate seems to have taken precedence over the imported article. It was selling at 3⅝c., the same price as that quoted for English.

From statistics obtained from an official source, and published early in 1884, it was shown that the trade in the heavy chemicals in this country during the three preceding years had very decidedly increased, while the consumption on the Continent of Europe had lessened, the wants of this country at that time being greater by 79,733 tons than those of European countries, outside of Great Britain.

For the next couple of years the changes in the chemical market were not of a very decided character. Buyers were getting goods both on the spot and for forward shipment at prices heretofore unknown in the trade, owing to the changes that had occurred in processes of manufacturing and the steadily increasing importance of American production as a factor in regulating market values.

A constant enlargement of the production, in spite of the growing consumption, led to an accumulation of stocks and a demoralization of the market during the next year or two, prices fluctuating as a result of the conditions of supply and demand, but the tendency generally being in buyers' favor. There was no decided change in the situation until early in October, 1888, when the first premonitions of the coming consolidation of the English producing interests were given, and then prices took an upward turn. Soon after this the alkali combination was completed, and prices here were put on a firmer basis. The history of the trade from that time to this is so well known to our readers that it is unnecessary to go into details. In spite of the combination of foreign producing interests, the reduction of expenses by the appointment of special agents on this side and the discontinuance of general consignments, prices have continued to decline, chiefly because of the extension of production by American manufacturers, which, with the improvement in the quality of their goods, has given them a large part of the trade, so that, notwithstanding the natural increase in consumption, based upon the growth of the population, the foreign makers have made little headway here during the past ten years, and instead of being the aggressors, they, in not a few cases, find themselves on the defensive.

The Paint Trade for a Quarter of a Century.

Twenty-five years ago conditions governing the paint trade were decidedly different from those prevailing to-day. Methods of communication were not so easy and were more costly; consequently, instead of staying quietly at home and waiting until his stock needed replenishing and then sending a code telegraphic message to the manufacturer or grinder, or waiting for the urbane traveling salesmen to come along, the interior merchant journeyed to New York twice a year, posted himself thoroughly on the feature and prospects of the market and placed his orders for a six months' supply accordingly. The perfection and cheapening of cable and telegraph service and the introduction of the telephone did much to make these semi-annual visits to the metropolis unnecessary, but, more than anything else the detailed accurate reports furnished weekly by the Oil, Paint and Drug Reporter, thoroughly posting the country buyers in what was going on in New York, changed the character of events in the trade, making it no longer necessary for the out-of-town buyer to come to the city in order to become posted.

For a number of years after the Reporter became the recognized authority on current events in the paint trade, there was little change in the routine of business. Habits are hard to change, and although buyers were getting weekly more information as to the situation in the primary markets than they had been able to obtain previously by personal investigations on their periodical trips to the city, they still adhered to the policy of making their purchases twice a year, spring and fall.

Early in the '80s the production of domestic products of all descriptions had increased to such an extent that foreign manufacturers were pushed into the background in very many cases, only those holding their own whose goods either became of special worth or because of a prejudice in their favor created by long use, found a continued large sale in this country. While trade was going on in a humdrum sort of way year in and year out, the constantly increasing competition among the domestic manufacturers was having a demoralizing effect upon the market. Combination after combination was made in different branches of the trade only to be broken and precipitate the trade into a condition of worse depression. The hard times immediately preceding the resumption of specie payments in 1879 witnessed a continued decline in market values, and what were then considered phenomenally low prices ruled week after week, with no prospect of improvement. It may be said in passing, however, that the then so-called "rock bottom" quotations were in most instances higher than the prices named for an even better class of goods to-day. The "boom" of '79 and '80 sent prices 'way up. Speculative interest was active, and large quantities of goods were imported from the other side, while the domestic factories were worked to their utmost capacity to turn out stocks as fast as they were wanted. But, unfortunately, the consuming demand did not hold out, and the accumulation of spot stocks of domestic, as well as imported goods, became excessive before the close of the fall season. Buyers were well filled up far in excess of ordinary requirements, and could not be interested. The bottom had fallen out of the boom. Holders finding that buyers could no longer be interested, and themselves being burdened with stocks which they had hoped to dispose of before the inevitable collapse came, offered all sorts of inducements. The short-lived frenzy was over, and from that time forward the recovery was extremely slow. In fact an even balance between supply and demand was not reached until early in the '90s, and some people still express the opinion that an equilibrium has not yet been reached.

The ups and downs in the paint business during the past twenty-five years have been, perhaps, no better exemplified than by the white lead trade. Years ago the American corroders, by force of the superior quality of their product, worked up to by slow and laborious degrees, gained the confidence of domestic consumers, with the result that foreign made lead, which for many years was given the preference by the majority of consumers, and which at the time when the Reporter first began to chronicle events in the paint market was looked upon as standard, was relegated to the backbround except in special instances. Competition among the American manufacturers grew amazingly. Factory after factory was started in the West, and the original works in the East redoubled their efforts to keep to the front. The competition led to deep cuts in prices, which wiped out profits. Some of the wiser members of the trade suggested a conference of the corroders, with a view to taking action that would put an end to competition. A meeting was held in Saratoga early in June, 1879, at which an understanding was arrived at, to the effect that a uniform price should be made and adhered to by all corroders, but, unfortunately for the success of the undertaking, a number of corroders refused to come into the agreement, and their offerings soon brought the market back into its previous demoralized state. For several years following this efforts were made periodically to get the corroders together and induce them to agree upon a uniform price. Combination after combination was made, only to be broken as soon as the parties to it had returned to their homes. It was a case of the best man first. The Eastern corroders seemed to be anxious to put the business on a paying basis, and to eliminate everything that would cause dissention, but the Western producers, particularly the newer comers into the field, were said to thwart all efforts to put the trade into shape by cutting under established prices in such a way that the cuts could not be traced to them directly. After several years of this sort of thing some of the leading members of the trade concluded that nothing was to be gained by an ordinary agreement to maintain prices, and they set about devising some ways and means of rehabilitating the white lead industry on other lines than those which had been tried theretofore. Finally, in September, 1888, all other efforts having failed to secure uniformity in quotations, and in other matters affecting the interests of the trade as a whole, the so-called Lead Trust was formed, and from that time to the present fairly steady prices have been maintained, subject only to the fluctuations in the price of pig lead and such depression in market prices as have resulted from the competition at different points from the so-called outside manufacturers. From 1888 to the present time fluctuations in white lead prices have been confined within narrow limits, though prior to 1888 the fluctuations were wide and frequent.

The history of the dry color trade for the past twenty-five years has been in the main an uninteresting one. In common with other lines of business, it has felt the influence of the change in methods of doing business, and the old-time fall and spring movement of stocks is no longer a feature of the market. It was no unusual thing twenty-five years ago for buyers to place orders for foreign goods for delivery over the next six or twelve months, but nowadays, as for a long time past, the orders have been regulated, as to size, by the actual present or probably early wants of consumption.

Few articles among the dry colors have shown such marked changes in market values as to call for special mention even in such a review as this. A comparison of prices quoted to-day with those published in the first issue of the Reporter will show comparatively little change, such as might reasonably be expected to follow the cheapening of methods of production as a result of the improvements made in machinery for extracting the crude material and perfecting the finished product.

During this time the development of native crude products has had a decided tendency to cause a reduction in market prices for all similar classes of foreign goods, and the progress made by American manufacturers in the turning out of goods that would compare with or even exceed in quality the products of foreign manufacturers, has naturally tended to reduce the market quotations for these articles.

Among the dry colors quicksilver vermilion and carmine have held a prominent position for many years. Until a comparatively recent date both of these articles were sold at prices established by an association, which included all of the manufacturers. No changes were made in price of vermilion except such as were necessitated by fluctuations in the price of quicksilver. But a few years ago several former employers of old-established houses went into the business as manufacturers, and subsequently the reduction in the tariff admitted of importations of certain foreign brands that could be sold here at less than the established prices. The combination for a time tried to overcome this competition by united effort, but without success, and the final result was that the combination went to pieces and an open market was declared, and has existed to the present time.

The carmine market was, at the time the Reporter made its first appearance, and for nearly twenty years thereafter, controlled by the three manufacturers who were the sole producers of the pigment in this country. Early in the '80s an outside maker started in to get a share of the trade by quoting lower prices than the combination named, but he only lasted a short time During this period, however, prices were much unsettled, and were finally put at such a low figure by the combine that the outside market found it impossible to meet the quotations, and, after making a considerable loss in trying to maintain his position, he gave up the struggle. The next eight or nine years were uneventful, and then came the reduction in the tariff, which enabled foreign manufacturers to enter this market and undersell the American producers. The latter maintained their organization for a time, but were eventually compelled to declare an open market, especially as some new competitors had appeared in the field in the person of firms formed from former employees of old-established houses. The carmine combination was dissolved some three years ago, and since that time the market has been in a most unsettled condition.

Paris green as an insecticide made its appearance almost coincidently with the first number of the Oil, Paint and Drug Reporter. Early in the '70's a strange bug appeared which rapidly increased in numbers and gave its attention strictly to the potato vine, with the result that the potato crop year after year began to dwindle, since before the tubers began to grow their nourishment from the outer sunshine and rain was cut off by the destruction of their feeding avenue, the plant above ground, by the voracious appetite of the little beetle with a striped back. No one seemed to know from whence this pest came and, perhaps for want of a better name, it was called the Colorado beetle, but afterward when it became more numerous, because of its apparent preference for this particular plant, it became generally known as "the potato bug," and if any one should speak of a Colorado beetle today there would be very few who would know to which sort of an insect he referred. All sorts of things were tried with the idea of getting rid of the pest, until some bright mind suggested Paris green. That article had theretofore figured as a pigment, the chief use of which was in the painting of window blinds and in other painting work, where a brilliant light green was desired. It had also been used to a considerable extent in the printing of wall papers, but on account of the action of the health authorities about this time on the ground that its use for decorative purposes was prejudicial to the public health on account of the excessive amount of arsenic it contains, its usefulness in that direction came to an abrupt end, and but for the appearance of the potato bug it is probable that at the present time nothing would be known to the paint trade by the name of paris green, save possibly some imitation pigment that contained none of its deadly properties and little if any of its brilliancy. Paris green can scarcely be included in the list of paints at the present day, and perhaps the only reason why it is considered to belong in that category is that it is made altogether by paint manufacturers. Most of those who are now engaged in the production of this pigment doubtless wish themselves well out of it, for, notwithstanding the remarkable decline in the cost of the ingredients which enter into its composition during the past twenty or twenty-five years, the process of manufacture is so dangerous to those employed in carrying them out, and the competition has become so great that profits have been reduced to a very small figure at times and at others have been entirely wiped out. In fact, some of those still engaged in the business have been reported as having stated that the net result of all their labor in certain seasons has been a loss of profits.

This was no always so. In the early days of the paris green business, after the product began to be valued chiefly as an insecticide, it was no uncommon thing for the market to be quoted at even 50 or 60c., though in the main the quotation was nearer to 20c. The extreme prices were the result of speculation, largely the manipulation of persons who had no connection with the paint trade, either as manufacturers or dealers. These high prices continued for several years during the height of the season, which usually had it beginning in April and continued until the end of June. The insecticide was effective in more than one way. It killed off the potato bug and at the same time killed speculative interest. Some renewal of the speculative fever ocurred in the early '80's, when it was discovered that paris green killed the cotton worm with almost the same facility as it had thinned out the ranks of the Colorado beetle. This, however, did not last long, and as it had done its work well, like nearly all other useful agents, as soon as its usefulness was at an end it was practically cast aside.

Although it has stopped the ravages of the potato bug, it has not entirely exterminated it, and in the length and beradth of this great country, there is still a demand that annually takes up hundreds of tons of paris green. For this trade there is more competition apparently than there was for the immense business that was done in the years 1875 to 1880. And this competition has caused a most remarkable shrinkage in market values, a shrinkage that is in no wise warranted by decreased cost of manufactures, for at the present time the price of the most important ingredient, arsenic, is as high if not higher than it was when paris green was selling in immense blocks at 50c. per pound.

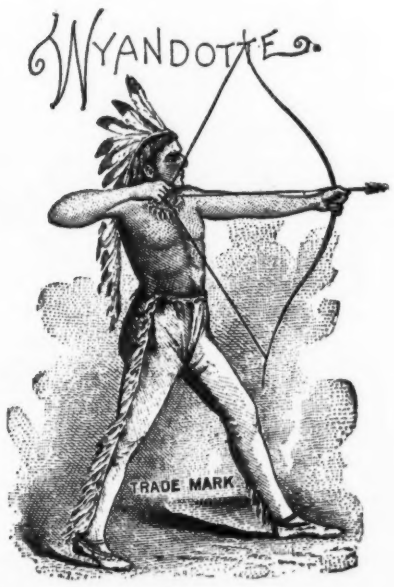
The high prices that prevailed for so many years encouraged manufacturers who had made little if any of the article previously to engage in its manufacture on a large scale, and having the plant necessary to the purpose they were loath to abandon it so long as there was a prospect of making even a decent profit (which, by the way, report says, many of them failed to do, even when trade was much better). With a comparatively limited outlet into consumption, owing to the destruction worked in previous years by paris green and other insecticides, these manufacturers soon began to cut under each other's prices. Year after year the manufacturers met and agreed upon certain prices, but without effect, for no sooner had they returned to their homes than some member, secure in the belief that the others would hold to the agreement, sent out confidential cir-

MICHIGAN ALKALI CO.

WYANDOTTE, MICH.

MANUFACTURERS

SODA ASH



48 Per Ct. **58 Per Ct.**

OPERATING TWO PLANTS

DAILY OUTPUT 300 TONS

Having largely increased our production in order to meet the increasing demand for our ash, we can now furnish for contracts of any size or fill from stock promptly in **Bags, Barrels, or Bulk.**

DENSE 58 per ct. **LIGHT 58** per ct.

DENSE 48 per ct. **LIGHT 48** per ct.

LIGHT 36 per ct.

Prompt Attention to Quick Deliveries

culars to large buyers offering to make a special rate in consideration of an order for a certain quantity to be delivered at the buyer's option during the season, or something to that effect. This, as is always sure to be the case, came to the ears of other parties to the agreement, who thereby felt that they were absolved from obligation to sustain the market and consequently in a very short time the agreement to maintain prices became a dead letter and it was every man for himself.

Early in the '90's trade became so demoralized and prices so demoralized that a majority of the manufacturers decided to throw up the business for good and all. Those who remained got together and formulated a set of rules which they agreed to live up to and fixed up a schedule of prices, rebates and discounts which they thought would be acceptable to buyers. The potato bug nuisance had not be eliminated, though greatly lessened, and there was still a market for many hundred tons of "green." They succeeded so well and made such good profits that some of the manufacturers who had previously dropped, concluded to go into the business again and the business again became unprofitable, according to statements of the manufacturers. Then the National Wholesale Druggists' Association, through the members of which the bulk of the output of paris green had been for many years dispensed to the consumers, took a hand in the proceedings and endeavored to have paris green treated the same as other proprietary goods. A plan was formulated by the manufacturers on these lines and this would probably have been the end of the controversy had not some more of the outside manufacturers seen in it an opportunity to get a profitable market by underselling the prices named, by those who were bound to maintain faith with the Wholesale Druggists' Association. The results were a disasterous season for everybody and for about two years there has been virtually an open market with about the lowest prices on record. There is now said to be a tacit if not a binding agreement among the manufacturers with reference to prices for the coming year, but as the season has not opened yet, no one is in a position to hazard an opinion as to how it will work.

OUR ADVERTISERS.

The only name which appeared among the advertisers in the first number of the Reporter that is included in the list of those whose cards grace the present anniversary issue, is that of Campbell & Thayer. There have been several changes in the personnel of this house during the intervening years, but the standard which then characterized its products, as well as its business methods, have been steadily maintained, and have kept pace with whatever progress those years have made possible in connection with the linseed industry.

Among the leading brokerage firms in existence when the Reporter first made its bow to the trade was the house of Wing & Evans. After a lapse of twenty-five years we find the same firm (though its personel is somewhat changed by the death of Mr. Evans) no longer brokers, but the leading house in handling heavy chemicals of both foreign and domestic make, being selling agents for the largest alkali makers abroad, Brunner, Mond & Co., and in this country, the Solroy Process Co., whose works are located at Syracuse, N. Y. Further information regarding the goods which this enterprising firm represents may be had by calling upon or addressing them at 22 William street, this city.

We call special attention to the advertisement of Messrs. F. E. Atteaux & Co. of Boston in this issue. They are sole selling agents for the United States and Canada for American hyposulphite of soda and sulphide of sodium, Tremley brand and process. These chemicals are of special interest to photographers and leather manufacturers who wish to secure the best quality. They are also large importers of aniline and alizarine colors and dyestuffs and manufacturers of special colors for wool, cotton and leather manufacturers. Having a large, new and thoroughly equipped factory of their own, they can offer the best quality of colors, dyestuffs and chemicals at reasonable prices, and we believe that it would be to the interest of the consumers of the line of goods they handle to correspond with them when in the market.

The Tartar Chemical Company, this city, are refiners of cream of tartar and tartaric acid, guaranteed 99-100 per cent. pure, which is fully up to the average claimed to be chemically pure. They will be pleased to make quotations on any quantity on application.

William R. Peters & Co., this city, are agents for Stassfurt potash salts and headquarters for fertilizer chemicals in general, of which their sales for both prompt and future delivery are ever increasing. They also offer olive oil and olive soap stock for soap and textile manufacturers.

The old-established and well-known firm of Battelle & Renwick, this city, have for years been among the leading dealers in refined saltpeter and refined brimstone, in various forms. Nitrate of soda, muriate of potash and crude saltpeter and brimstone they import in large quantities, and offer ex vessel or to arrive, and they are always prepared to name lowest market rates.

Seaver & Co., 120 Milk street, Boston, Mass., make the claim of being the largest manufacturers of fine ivory and drop black for trade and grinders' use, and they are ready to substantiate their claim. The quality of their product they guarantee in every respect equal to the best imported, as they also guarantee all goods sent from their works. They will be pleased to send samples and prices on application.

Among the chemicals made by the Martin Kalbfleisch Chemical Company are sulphuric acid, muriatic acid, nitric acid, acetic acid, red liquor, sulphate of alumina, alum, sulphate of copper, tin crystals, muriate of tin, sulphate of zinc, aqua ammonia, nitrate of iron, black iron liquor, sulphate of soda, Glauber's salt, etc. They have factories at Brooklyn, N. Y.; Bayonne, N. J., and Buffalo, N. Y., and their facilities are unsurpassed.

In addition to a general line of pharmaceutical chemicals, Messrs Charles Pfizer & Co. have for more years than the Reporter counts been among the foremost chemical houses of the country. They have long been acknowledged headquarters for refined borax and boracic acid, cream tartar and tartaric acid, and refined camphor, of all of which they are among the foremost manufacturers of the times. The quality of their products needs no indorsement, and their ability to meet competition has been repeatedly proven.

Bosson & Lane, manufacturers, importers and dealers in dyestuffs, chemicals and aniline colors, now occupy the entire second floor of 36 Central Wharf, Boston, where they have ample facilities for conducting their steadily increasing business. Among their specialties are bisulphite of soda, prepared cutch, extract of sumac, black dye, alizarine assistant, soluble oil, anti-chlorine, sal sorrel, etc., on which they are prepared to name satisfactory figures. Orders placed with this house will be filled with promptness and entirely to the satisfaction of the purchaser.

There are some firms whose business continually increases, in spite of the slow times, and one of them is the enterprising and pushing house of Fuerst Bros. & Co., who are not only increasing their regular imports, but also cater to the export trade. They have acquired an enviable reputation for handling large quantities of the best Continental and English bleaching powders outside of the English trust; also finest quality of chlorate of potash, oxide of tin, chloride of zinc, sal ammoniac, cutch, plumbago and other heavy and light chemicals, dyestuffs, oils and general supplies for the paper, soap, textile and chemical trades. Intending buyers will do well to inquire their prices before purchasing elsewhere.

Among the new companies which have launched out during the past season in the cotton oil business may be mentioned the Interstate Cotton Oil Company, whose works are located at Augusta, Ga. Management of this new and important mill is under the charge of Mr. George L. Baker, who received his early education in the cotton oil business with his father, Mr. George O. Baker, who was one of the pioneers of the oil trade. For several years past, or previous to the erection of his new mill, Mr. Baker was superintendent of one of the large mills of the American Cotton Oil Company. Though the Interstate Company is a new one, it has already gained a foothold in the trade, owing to the fine quality of its goods. For further information we direct the attention of our readers to their announcement upon another page of this issue.

Since the establishment of the Roessler & Hasslacher Chemical Company's works that concern has maintained a rate of progress which has few parallels among industrial establishments. The present extent and importance of its leading lines are indicated, in part, by its advertisement elsewhere in this issue, which emphasizes some of its most prominent specialties.

There are very few importing firms of clays, colors and minerals in this city dating back as far as the firm of Hammill & Gillespie, who were established in 1848. They make a specialty of china clay and fire bricks, also paris white, Fuller's earth, whiting and chalk, and the satisfactory character of their dealings is well-kown to most of the buyers of these goods.

As will be seen from their card in this issue, the E. S. Belknap Manufacturing Company of this city is the "oldest putty establishment in the United States." Further information regarding the quality of the goods made by this firm will be furnished upon application at its office, 8 Gold street, New York, where it has been located since before the Reporter was first issued.

The drug trade, soap makers, or other consumers or holders of cottonseed oil will find Messrs. Charles B. Taintor & Co. of this city headquarters in that very important commodity. In addition to being the agents at this port for the Kentucky Refining Company, they are also large receivers of crude and refined oils on consignments, and are prepared to fill orders for any grade.

The advertisement on another page of Welch, Holme & Clark Company shows they are headquarters for high test powdered caustic soda. They make a specialty of superior quality green, olive oil, foots, and are also a leading house in soap materials, mill supplies, tallow, grease, oils, etc. Buyers who are looking for the best of goods should bear in mind that this well-known house is at 383 West street, where they have been located for many years.

Though the senior member of this firm has been connected with the acid from his youth, he only recently established the firm of Edward L. Kalbfleisch & Son, which makes a specialty of acids, dyestuffs and chemicals, used chiefly in the woolen, silk, cotton and cotton trades. As stated above, the senior is so well known to the trade that any commendation from us would only be superfluous. Consequently we merely direct the attention of our readers to the firm's cards, which may be found elsewhere in this issue.

One of the prominent American establishments which has sprung into existence long since the Reporter began its work is the New York Quinine and Chemical Works, limited, whose history up to date has been a most favorable commentary upon the ability of Americans to equal the older European countries in the production of any class of goods. The extensive works of the company have constantly widened the variety of their products, and the high standard of quality which has been maintained throughout has made the "N. Y. Q." brand a prime favorite with physicians as well as the large consuming pharmaceutical manufacturers, the jobbers and the retail druggist.

With the development of the cottonseed oil business, which set in during the early 80's, the establishment of the Kentucky Refining Company at Louisville was the beginning of one of the most successful ventures that has been undertaken in the history of this industry. The organization was formed in 1882 with a capacity of but five barrels a day, and has grown to be one of the largest single refineries in the country, its present plant covering five acres of ground. The company from its inception devoted itself to the production of the best oils that could be turned out of a refinery. No brand of culinary oil has acquired a higher reputation in the markets of the world than the Kentucky company's "Delmonico," although its "Eclipse" butter oil and "Snowflake" prime summer white, specially prepared for lard compounders, have been recognized as among the most desirable makes offered for these respective uses. The company has a number of other important brands, and, in addition to these specialties, is always abreast of the market on all other cottonseed products, including crude oil, stearine and soap stock. It has its own tank cars, which are furnished free for its sales or purchases, and its geographical location has proven most advantageous both for the obtaining of supplies and the distribution of products.

Few concerns are better known to the fertilizer trade than the old house of Hamilton H. Salmon & Co. of this city. In order to get a better knowledge of the articles dealt in by this enterprising firm, we call the attention of would-be buyers of their goods to their card in this issue, which speaks for itself.

Among the new exporting firms which have come to the front during the past year, and are now in the front rank, may be mentioned that of Hasse & Solger of this city. They make a specialty of cottonseed products, greases, tallow, corn oil and corn cake. They are equipped with ample capital and have established connections in all of the leading foreign cities, as well as having an acquaintance with all the domestic producers.

Those of our readers who desire a reliable foreign correspondent will find one by communicating with Messrs. Peter R. McQuie & Son, of Liverpool, England, whose firm was established the year the "good Queen Victoria" began her reign. They are so well known among the chemical houses here that any commendation on our part is quite superfluous, except to call attention to their card, which appears in this issue.

In the manufacture of chemically pure refined and special grades of glycerine for industrial purposes, the Grasselli Chemical Company is not only one of the best known but also one of the most extensive establishments in this country. They are not only refiners of this product, but are also devoted to the manufacture of mixed acid for nitro-glycerine, Glauber's salt and a number of other important chemicals, the quality of which is familiar to the trade.

An enormous American industry, unknown here when the Reporter was started and for many years thereafter, is represented by the plants of the Michigan Alkali Company at Wyandotte, Mich. The growth of this enterprise, under the direction of the veteran glass manufacturer, Capt. J. B. Ford, is one of the industrial wonders of the past five years, in which there has been so much development in chemical manufacturing in the United States. The company has produced an excellent quality of soda ash, and has made the Wyandotte brand especially popular among consumers in the natural gas belt, which it is able to reach at very favorable freight rates. In fact, its location seems to be favorable for a saving of transportation, both on crude materials and the finished products, and the extensive development of the alkali industry at that point is likely to occur.

The Emerson Drug Company, Baltimore, Md., make a very liberal offer to the retail druggists of the United States and Canada, the full particulars of which are set forth on another page of this issue. They offer $20,000 in gold, in sums ranging from $500 to $5, to the retail druggists selling the greatest quantity of bromo-seltzer during the year 1897. The premiums are well worth an effort, as, even though one of the larger is not secured, $100 or $50 will prove a very acceptable sum to any retail druggist in the way of extra profit. The enterprise of this firm will unquestionably be rewarded by a large sale of the bromo seltzer, but the $20,000 in gold is not expected to be returned in the way of profit on extra sales, but, whatever the sales may be, this small fortune will go to the retailers. It is, indeed, a generous offer, and one which will no doubt be appreciated.

The Bridgeport Wood Fnishing Company, New Milford, Ct., with offices in New York, Chicago, and Boston, is known all over the land, and in foreign countries as well as a manufacturer of specialties of rare merit for the painter's use. Among these we may mention Wheeler's patent wood filler, Wheeler's patent liquid wood filler, Breinig's lithogen silicate paint, Breinig's lithogen white lead, Breinig's lithogen primer, Breinig's floor polish, besides a full line of wood stains and dyes, varnishes, blackboard paint, enamel paint, japans, etc. In addition it is probably the largest producer of silex, which is made of all degrees of fineness. The production of paints for special purposes, especially for buildings exposed to sea air or severe climates, has been a feature of this house, and the sale of these has extended to large proportions, they having proven very favorable, notwithstanding dampness and unfavorable climatic conditions, where ordinary paints were found of little use.

— THE —

Mathieson Alkali Works

Works at SALTVILLE, VA.

Manufacturers of

PURE ALKALI 58%

Carbonate of Soda 99%

SODA ASH 48%

CAUSTIC SODA 70%, 72%, 74%, 76%

Bleaching Powder

CAUSTIC SODA 99% Pure

CASTNER PROCESS

Works are now under construction at Niagara Falls, N. Y., for the extensive operation of this—the Castner Process.

SELLING AGENTS:

ARNOLD, PECK & CO.

Providence, New York, Boston.

One of the oldest brands of red lead and orange mineral in the American market is that of John T. Lewis & Bros., of Philadelphia. No make has done more toward establishing the high reputation of these products of American lead corroders, and none is better known or more highly regarded by the trade and consumers. All branches of the National Lead Co. carry the Lewis products in stock.

The Paragon Refining Co., Toledo, O., has long had the reputation of producing refined petroleums of exceptional brilliancy and fine burning qualities, and they are prepared to extend their trade, especially for their popular "white swan" and "black swan" 150 water white oils. Among their other specialties are gasoline for stoves and gas machines, naphthas for varnish and painters' use, and exceptionally fine grades of lubricating oils.

The old and well-known house of A. B. Ansbacher & Co. is prominently represented in this issue. This is one of the oldest houses in the dry color business in the United States, and its reputation for the quality of its products, and for honorable business methods stands second to none. They produce dry colors of the finest quality for manufacturers of printing inks, oil cloth, glazed paper, wall paper, paints, etc. Application to either their New York or Chicago houses may be made for catalogues, prices, etc.

When the Reporter was in its infancy among the largest receivers of caustic soda at this port was Mr. Theophilus M. Marc, who was also a heavy dealer in oils and other materials for soap makers' use. Later on Mr. Marc gave up the chemical business, and has since devoted his attention as an expert commission merchant to oils and other greases. The Reporter rejoices at being able to include Mr. Marc among its later as well as among its earliest friends, a feeling that will be appreciated by every firm at home or abroad which is classed among his correspondents.

The oldest brands of cottonseed oil in the world, and those which first represented the highest standards of purity to which these products can be brought, are those of the Union Oil Co. of Providence, R. I. This company made cottonseed oil as early as 1855, and has progressed with the industry ever since the development of the latter began some years later. The leading specialties made by the company are familiar to the consumers of these oils throughout the world, and their extent and variety are indicated in brief in the announcement made on another page.

Among the recent additions to the list of alkali makers in this country may be mentioned the Mathieson Alkali Works, which are located at Saltville, Va. They not only turn out alkali largely, but also make a specialty of high test caustic soda of various strengths made by the Castner process, works for which are now being constructed at Niagara Falls, N. Y. They also intend making bleaching powder at these works. The selling agents for the products of this company are Arnold, Peck & Co. of Providence, R. I They also have branch houses at New York and Boston.

The consolidation of interests in the American Cotton Oil Co. carried with it some of the most prominent brands that have ever been established here. The reputation of these brands has been maintained under the new management, and several new ones of equally wide repute have been built up under its energetic pushing of this important American product into the markets of the world. The company manufactures every form of cottonseed product, put up in packages adapted to all markets and all uses. It is also the largest maker of scouring and fulling soaps in the world, as an incident of its oil business.

Some of the largest chemical works in the country are being supplied by the Semi-Steel Company, of which the King & Andrews Company, 218-226 North Union street, Chicago, are proprietors, with their anti-acid castings, such as acid pans and kettles, pots and retorts, and all castings that are exposed to the action of chemicals, and to extreme heat. These castings, owing to their freedom from blow holes and their close grain, will not crack, check or burn out in spots like ordinary iron, thereby lasting from 50 to 100 per cent. longer, and reducing to a minimum the remounting of heavy kettles, etc. The company will be pleased to furnish estimates on applications.

The Heller & Merz Co., this city, have long since established a national reputation as manufacturers of ultramarine and aniline colors. They make a long list of the new colors, and are prepared to furnish colors to match any sample submitted. Among their specialties is barrel paint, which is specially recommended to oil refiners and dealers. Their factories are located at Newark, N. J., and the house has branch offices in Chicago and Philadelphia, at either of which full information will be given.

The Sun Oil Company, with offices at Toledo, Ohio, and Pittsburgh, Pa., enjoy the advantage of being producers, as well as refiners of petroleum and its products, among which are lubricating oils and greases, illuminating oils, naphthas, benzines, gasolines, tar, residium and many others, making a specialty of high-grade gas-making oils, including prime crude oil, high-grade distillates and gas naphthas. They are both shippers and exporters, priding themselves that their shipping facilities cannot be beaten.

The announcement of the Nichols Chemical Company is unique among the advertisements which embellish the pages of this issue of the Reporter. While the company has failed to impart much information concerning its varied products—though that were perhaps unnecessary before any audience of the consumers of chemicals—it has given a very forcible illustration of the spirit which characterizes its commercial relations, and a no less considerate regard for its customers will be found to dictate the policy of its manufacturing departments.

The Oliphant & Pope Company, Trenton, N. J., are manufacturers of fire bricks of various grades; also porcelain chemical bricks, blocks and tiles for glover towers and nitric acid works. These bricks, etc., are claimed to be indestructible, and another point in their favor is the fact that no discoloration will result from their use for any purpose. They invite all manufacturers having any use for these products to write them, stating their wants, and they will be pleased to give them quotations on special shapes, and will also send samples, so that intending buyers can inspect the same and make their own tests.

One of the largest companies dealing in crude borax and its products in the world is the Pacific Coast Borax Company of New York, Chicago and San Francisco. Enormous quantities are received in New York from their deposits in California for refining in this country, and large quantities are also shipped abroad to be refined in their own plant in England, where the product comes into keen competition with the English article. Boracic acid in crystals, powdered or granulated, is an important factor in their business to-day, and although it is a comparatively new product of this company, it has already reached a high degree of perfection, and shows promise of constantly increasing sales.

Attention is called to the announcement of F. W. Thurston & Co., 29-31 River street, Chicago, which appears in another part of this issue. The firm is one of the largest importers of painters' supplies in the West, and sole agents in the United States of the composition pumice stone referred to in the announcement. This stone is used for grinding and polishing of all kinds, and is offered as a most efficient substitute for the volcanic or natural pumice stone. The advantages claimed for it over the natural stone are that it can be made, so far as grain, hardness and shape are concerned, according to requirements, and is guaranteed to be perfectly free from all impure matter, gritty particles, etc., which are frequently a source of annoyance with natural pumice stone. Another superiority claimed for it is that every stone is salable and fitted for immediate use, while natural pumice stone is subjected to such injury in transit that much of it frequently arrives in broken condition, which not only is a cause of trouble to the seller, but greatly dimnishes its fitness for the use for which it is intended. This artificial stone is now in use by the leading carriage manufacturers, marble workers, lithographers and railroad car shops, and is adapted for all purposes for which the ordinary lump and powdered pumice stone has heretofore been employed, including planing wood, removing old varnish, fine polishing of wood, marble and stone, jajanning, and the finest wax class of work of all kinds. Quotations and other information will be cheerfully furnished upon application to the address above given.

Among the specialties dealt in by the chemical firm of John C. Wiarda & Co., whose works are located in Brooklyn, N. Y., may be mentioned manganese, bone ash and fluoric acid. While this enterprising firm is especially pushing these articles, it is also giving attention to the many others contained in the list as given in its card appearing elsewhere in this issue, and a careful perusal of which will be of interest to our readers.

About the oldest brokerage house now in existence that can be mentioned is that of Parsons & Petit, which was established in 1847, and is now carried on by the son of the senior, under the old style. The firm makes a specialty of brimstone, both foreign and domestic; also nitrate of soda, sulphate of ammonia, pyrites and a general line of dyestuffs. For further information we direct the attention of buyers of these commodities to the card which appears in this issue.

The jobbing trade is given a few suggestions worthy of their consideration by Messrs. Merck & Co., in an announcement which appears in this issue. Every jobber realizes that the retailer is the dictator of his own purchases, and that his continued custom can be best retained by meeting his wants promptly and to the fullest extent. The long established and high reputation of Merck's chemicals gives them a prestige which merits and receives the widest recognition in all branches of the trade.

Among the old, if not the oldest, receivers of cottonseed oil in this city is the house of Josiah Macy's Sons, who are prepared to meet the wants of buyers of either refined or crude cottonseed oil, as the case may direct, and are also in a position to furnish the trade with a strictly pure lard oil under their old established brand. The high standard which this firm established many years ago, has been steadily maintained by those who have succeeded to its management through the various changes that have occurred in its make-up.

Very large quantities of argols and all tartar materials, also the soap stock known as sulphur oil, are exported to the United States from Italy by Arthur Oulmann & Co. of Naples. This firm is also an importer of sulphate of copper from the United States, and manufacturers here interested in either feature of its business would do well to write either to the Naples house or its branches at Barletta, Bari, Brindisi, Leghorn, Foligno and Ancona. The business of the house with this country is very extensive, and its connections abroad are of the most substantial kind.

The business of A. Klipstein & Co. was established by Mr. August Klipstein, its present president, in 1871. A few years later he was joined by Mr. E. C. Klipstein, the present treasurer of the company, a member of an American family of the same name. Aniline colors and the finer coal tar products were then coming more extensively into use in the larger manufacturing industries, and this firm, having obtained the exclusive American agency of the Society of Chemical Industry in Basle, one of the pioneers in the manufacture of coal tar dyes, soon took a leading place among the sources of supplies for the ever-increasing numbers of consumers of aniline colors and coal tar products in general. One of the latest products of the Basle manufacturers is hydra-sugar, appropriately called "the newest and best sweetener." It has 550 times the sweetening power of pure cane sugar. The firm's intimate contact with the consumers of dyestuffs naturally led them into the handling, and later into the manufacturing, of many, and they also added many agencies of leading European manufactures. Many of these articles are also used in considerable quantities by the drug trade, and buyers of such in original bulk packages can be supplied at lowest first-hand prices by the head offices of A. Klipstein & Co. at New York, and usually by the branch offices at Boston, Philadelphia, Chicago and Providence. Among such articles may be enumerated, in addition to hydra-sugar, above mentioned, oxalic and picric acid, carbonate, caustic, chlorate, permanganate and prussiate of potash, sal ammoniac, galvanizers, white granular, "Electric Brand" (almost C. P.) and lump qualities, tartar emetic, bleaching powder in casks and barrels, calcium chloride, verdigris, besides the various soda salts, such as soda ash, sal soda, caustic, phosphate and hyposulphite soda, etc., also carmel soap, a white Castile toilet soap.

The Cohansey Glass Manufacturing Company of Philadelphia is the largest maker of gas tank window glass in that section of the country. These goods have a very brilliant finish, and are claimed to fully equal the imported glass. The company also manufacture bottles, jars and druggists' ware of a very fine quality, and is prepared to meet competition at prices and with a promptness which cannot fail to attract the largest buyers. Dealers in any of these products who desire first-class connections should correspond with this company before selecting their stock or entering contracts.

Such of our readers as are interested in absolutely non-poisonous colors, carmine, gelatines or egg albumen, cannot fail to find the advertisement of Messrs. H. Kohnstamm & Co. of the very greatest interest. This firm is one of the very oldest and most reputable in the trade, and their guarantee label on any goods is equivalent to a positive certainty that no unpleasant consequences can arise from their use. Messrs. Kohnstamm & Co. are established since 1853, and are the pioneers of fine color importers, holding a certificate of award of a medal, given by the committee of the International Exhibition, held at Crystal Palace, New York, 1853.

As will be seen from their card in this issue, Messrs. James L. Morgan & Co. are one of the oldest firms in this city in the acid and dye-stuffs trade. It was established at its present location, 47 Fulton street, 54 years ago, and there are few firms now in existence which have such a record. The house makes a specialty of acids, chemicals and such dyestuffs as are consumed by the woolen, paint and cotton mills. The quality of the goods manufactured by the firm is so well known to the trade that they require no special mention, except to call the attention of contemplating new buyers to the articles manufactured by them.

H. L. Hildreth, Boston, has an announcement on another page of this issue which is of interest to exporters and wholesale dealers who supply the retail drug trade with popular and quick-selling specialties. There is no doubt that "Velvet" is the most popular candy specialty now on the market, and is kept on sale by all first-class druggists and confectioners. Mr. Hildreth's establishment is the largest in the world, entirely devoted to the manufacture of molasses candy, the capacity being upward of 10 tons per day, and he is prepared to extend his export and domestic trade, and with this view he solicits correspondence. He has recently made large shipments to Glasgow, Scotland; to Jamaica, to Portland, Ore., and one to Australia.

There has been so much development of late in those branches of manufacturing in which electricity long ago promised to play an important part that competition has now forced many to do what only the daring and enterprising have hitherto done in this field. That useful form of energy has also made progress along lines but recently thought to be beyond its sphere, and the outlook is as attractive for the economist as for the scientist. One year ago Dr. McKenna of this city equipped his laboratory with an electrical installation approximating a power of forty-five kilowatts. So great has been the demand for its use in experimental work, he has been obliged to provide a new circuit of much greater power, and such as is rarely found outside of electrolytic works. With this he has done much useful work in the line of electric smelting, developing commercial electrolytic processes, etc.

Chemical manufacturers and especially the makers of acid will be directly interested in the statements which Mr. Fred Oliver of Charlotte, N. C., makes in his advertisement in another part of this issue. The white quartz rock from quarries controlled by him is specially adapted for packing Glover and Gay-Lussac towers, as it is practically indestructible and unaffected by heat or acid, defects which are common to chemical brick, and will not disintegrate or slacken like coke. The use of this quartz rock long since passed the experimental stage, and has already been supplied in large quantites to some of the most extensive plants in the country. The shipping facilities are such as to permit of the delivery of the rock, either by schooner or rail shipments, to any part of the world. Mr. Oliver's prominent connection with the cotton oil industry, and his high reputation is a sufficient guarantee that any claims made for the quartz rock will be fully borne out by personal experience of its use.

THE

UNITED ALKALI COMPANY

LIMITED.

G, EXCHANGE BUILDINGS. LIVERPOOL, ENGLAND

Manufacturers of Sulphuric Acid

BROWN VITRIOL, RECTIFIED VITRIOL, MONOHYDRATE, HIGH TEST SULPHATE OF SODA OR SALT CAKE, in bulk, or ground and packed. HYDROCHLORIC ACID, Common or Purified, CHLORIDE OF CALCIUM,

Bleaching Powder

Chlorate of Potash, Soda & Baryta

SODA ASH, all strengths, by AMMONIA and LE BLANC PROCESSES, REFINED ALKALI, all strengths BICARBONATE OF SODA, high strength.

CRYSTAL CARBONATE

CAUSTIC SODA 60% to 77%

Caustic and Carbonate of Potash

SAL AMMONIAC, MURIATE OF AMMONIA
SULPHATE OF AMMONIA, SULPHATE OF ALUMINA.

FERTILIZERS

SALT, Common, White and Rock. CHROMIC ACID.

STRONTIA SALTS

OXIDE, HYDRATE, CARBONATE.

MANGANATE OF SODA. PEROXIDE OF MANGANESE.
HYDRATED PEROXIDE OF MANGANESE for Gas Purification.

SILICATE SODA. B. S. COPPER. COPPER PRECIPITATE. PURPLE ORE.
S. S. PATENT RESIN. RESIN OIL.

SULPHUR

ROCK, ROLL, FLOWERS.

CHLORIDE OF IRON. CHLORIDE OF MAGNESIUM. ULTRAMARINE.
SULPHIDE OF SODIUM.

The card of the Southern Cotton Oil Company which appears in this issue so fully explains itself that it is only necessary for us to call the attention of our readers to it to insure its careful perusal. The principal office of the company is located at Philadelphia, where, under the careful oversight of its president, Mr. Henry C. Butcher, all its large transactions are negotiated. The selling agents for this city are the well-known exporters, Messrs. Whitman Brothers, whose office is located in the Produce Exchange.

The rapid extension of electrical works, especially in the United States, has created a distinct demand for the chemicals required for all descriptions of batteries, and in connection with various chemical processes. One of the first concerns to recognize this growing want, and supply it, was the Hanson & Van Winkle Co., of Newark, N. J., whose factory was established in 1820, very long before many of its most important products of to-day had any existence. The company also manufactures dynamps and various sorts of polishing and grinding machinery, as well as polishing materials for use in connection therewith. Its reputation is of the very highest order, and its facilities for promptly supplying any demands made upon it commend its advertisement, on another page of this issue, to the careful attention of buyers of this class of appliances.

The wisdom which has suggested that in times of prosperity we should prepare for adversity also leads most prudent people to give due consideration during the cold months to the selection of a fit place in which to spend the summer, and with this object in view readers of the Reporter cannot do better than to consult elsewhere in this issue the advertisement of the Cayuga Lake House. This now famous resort includes among its regular summer patrons a number of prominent New York and Philadelphia merchants in the lines represented by the Reporter, and the ease with which it is reached from both of these cities, as well as the salubrity and scenic attractions of its location, make it a highly desirable home for those who seek rest during the summer months. Further information concerning the house may be obtained by addressing the proprietor, Mr. Dudley S. Phinny, at his New York office.

Few concerns have done so much toward extending the use of high grade petroleum lubricants as the Borne, Scrymser Company, the head of which entered the oil business as a dealer nearly twenty-five years ago, and has since that time been assiduously working in the direction of improving these products, and also extending the appreciation of them on the part of consumers. The cylinder, engine and machinery oils of this company have long been regarded with the highest favor by the most careful users of these oils, both in this country and abroad, they having early acquired an especially favorable reputation among the largest consumers in England and Scotland. A full list of the Company's products and the prices thereof can be obtained from any of its offices in this country or abroad, the addresses of which are furnished in its advertisement on another page.

In 1837 Mr. Charles H. Leonard—uncle of the present George Delano's Sons—was in the oil and candle business at 140 Front street, where the business was continued until his death in 1868. From the latter date until 1885 the business was carried on by Messrs. George Delano, F. L. B. Mayhew and James A. Fussell, then by James Delano of New Bedford, Mass.—where the factory is situated; and S. C. L. Delano, at New York. The firm moved from the old store, 140 Front street, nearly four years ago (the building being demolished and an office building now on its site) to their present quarters, 176 Front street. While there has been many chances in Front street during the history of this business, the street itself is still representative of the oil business to a considerable extent. The successors of Charles H. Leonard absorbed in 1871 the business of Messrs. Lyles & Polhamus, both veterans in the business and well known throughout the trade. Both gentlemen are now deceased, Mr. Lyles up to the time of his death being vice-president of the Market and Fulton National Bank. Through all the changes of the oil manufacturing business the firm of George Delano's Sons has carried out the policy (with improvements, modifications, etc.) and endeavored to keep up the reputation of their predecessors.

Among those who have been closely identified with the cotton oil industry for several years past, in fact may almost be called one of its pioneers, is Mr. F. W. Brode of Memphis, Tenn., who makes a specialty of cottonseed oil products in all conditions, and is pleased at all times to not only furnish quotations but such other information as may be desired, relating to cotton oil.

Manufacturers or others requiring grinding mills for any purpose will find it to their advantage to write to Wilson Bros., Easton, Pa., makers of the F. Wilson patent mill machinery, and be their requirements large or small, the firm in question will be able to supply them, as they make mills weighing only thirty pounds, and which can be run by hand as well as those weighing tons and requiring many horse-power to operate. This firm also manufacture and sell hand and power bone cutters, and ask intending buyers to send for their circulars and testimonials.

A name which will recall to the old readers of the Oil, Paint and Drug Reporter the earliest issues of this journal and the conspicuous houses in the oil trade at that time is that of Mr. Paul Libby, of the enterprising firm of Kuhne & Libby, who is a son of W. H. Libby, the former head of the firm of Libby & Clark, and afterward Libby, Bartlett & Kimball. Messrs. Kuhne & Libby, although a young concern, have made good progress in the oil business as manufacturers of lubricating oils, greases and machinery supplies properly identified with these trades. Their house has numerous branches, both here and on the other side of the water, and its reputation is of a sort so creditable as to insure it a successful future.

Before the world had come to look to the columns of the Reporter for information concerning glycerine, the chemically pure product of Mr. W. J. M. Gordon of Cincinnati had received medals at various expositions for the excellence for which it was already noted, and which it has since conscientiously maintained. The list of awards which this product has received during the past thirty-six years has been limited only by the number of times it has been exhibited at international and other expositions, and these indorsements have simply emphasized the recognition of its purity, which has at all times been accorded to it by the trade and consumers. The W. J. M. Gorden Chemical Company makes glycerine for all purposes, and is prepared to meet the demands of the heaviest consuming industries.

The National Lead Co., ever since its formation, has devoted itself not only to improving the processes employed in the manufacture of lead products, but also to creating among consumers and the users of paints a better understanding of their value and the means necessary to their most economical and successful employment. The company includes among its manufactures every process, from the smelting of ore to the preparation of tints for coloring the ground lead and making it ready for application to inside or outside work. It has even gone further and prepared very attractive color schemes in the form of cards suggesting combinations for house decoration, the employment of which by painters is not only a labor saving device, avoiding much time and waste of material in experiments, but is also productive of more artistic results than are ordinarily obtained by the average painter.

The possession of wealth has been relieved of much of the trouble which it was formerly supposed to entail upon the possessor by the assistance in caring for it which is afforded by such an institution as the National Safe Deposit Company of this city. The company is located in the Mutual Life Insurance Building on Liberty street, and its vaults are so protected by mechanical and electrical contrivances, as well as by ever-present watchmen, that he who consigns his valuables to the custody of one of the boxes which the company provides, at rentals ranging from $5 to $250 per annum, may at all times rest easy in the perfect assurance that neither moth nor rust will corrupt his treasures nor thieves break through and steal them. Mr. James C. Holden, president of the company, has been long identified with the Mutual Life Insurance Company, and Mr. J. Lynch Pendergast, the secretary and manager, has had long practical experience in the conduct of this peculiar business. Among the directors of the Company is Mr. Theodore W. Morris, of the glass firm of Theodore W. Morris & Co.

James M. Adams (successor to William Warden & Sons, New York) is doing an extensive business as commission merchant in oils, tallow, stearine, grease, oil cake and meal, etc. He solicits correspondence, and communications addressed to him at 4 Stone street, this city, will receive prompt attention.

The names most conspicuously identified with the recovery of glycerine from soap lyes are those of Messrs. Jobbins & Van Ruymbeke, whose process has been adopted by all of the principle soap and candle manufacturers of the United States and Europe. Their factory, located at Aurora, Ill., turns out annually a large product of chemically pure glycerine, as well as glycerine for nitro-glycerine and other purposes, and is an important factor in the industry which their patents nave done so much to develop. Correspondence concerning their products or their processes for the recovery of glycerine may be addressed either to that city or to their New York office.

The firm of Charles Kaestner & Co., which was established in 1863, have offices in connection with their extensive works at Chicago at 241-249 South Jefferson street and 2-50 Law avenue. They are builders of a high class of machinery, including engines, boilers, pumps and various forms of power transmitters, especially designed for manufacturers of lead, paints and colors; they also call special attention to their impact pulverizer, claiming that it is the only machine in the market that will reduce all kinds of dry paint stock to an impalpable powder, dustless. They particularly invite correspondence as to estimates, specifications for special machinery, etc., from any of the users of this class of appliances.

The metamorphosis of the lard business during the past twenty years is well illustrated by the announcement made in this issue by the N. K. Fairbank Co., whose headquarters are at Chicago, with branches in all of the important cities of the United States. The company was formerly one of the largest makers of refined lard in the country, and without relinquishing its hold upon that trade, has pushed into popular use the world over the improved product of cottonseed oil known as "cottolene," and has added as a collateral product three distinctive detergents, which are among the most successful ventures of their class, and are creditable additions to the list of a company whose brand has always been a guarantee of excellence.

Many years previous to the first appearance of the Reporter, the senior member of the firm of J. Fitzpatrick & Co. was engaged in the glass business of this city with the firm of H. J. Baker & Bro. Later, he and Mr. Van Horn left Messrs. Baker & Bro. and launched out for themselves in the glass business. After several prosperous years in the handling of glass, he withdrew from the firm and in connection with his son, started the present firm. They make a specialty of imported glass of all descriptions, but also handle the domestic product. The world-wide reputation of this firm is so well established, especially that of the senior, who is known as "Jerry" to the older members not only of the glass, but the chemical trade as well, that any commendation from us is unnecessary, and we therefore merely call attention to their ad, which speaks for itself in this issue.

In 1864 the present head of the Dean Linseed Oil Company instituted that branch of the business of John Jewett & Sons, of which firm he was then a member, and to whose crushing business he subsequently succeeded. Mr. Dean is, therefore, the senior crusher now in active business in this country, while his familiarity with the industry may be traced to a still more remote date, when his old firm, as large consumers of oil in the grinding of lead and the manufacture of oil cloth, realized the difficulties of obtaining a quality of oil suitable for those purposes. Consumers to-day are more favored, and while they may, with good reason, discriminate between the oils upon the market, they need have no difficulty in securing such quality as will meet their most exacting requirements. And this latter fact is due, in no small measure, to the influence of the very unassuming gentleman to whom we have referred, and whose long connection with this industry has redounded to its credit no less than to his own.

For many years Mr. Hermann Weber was one of the leading brokers in chemicals specially used by soap, glass and paper makers. Within the past year or more he has given more attention to cotton oil and its products for home consumption among the soap makers, with whom he has a large trade; also in cocoanut oils. The bulk of his trade at the moment is confined chiefly to the exporting of cotton oil to the various outlets abroad, where he has established good connections for distributing these large shipments among the consumers in those centers.

Among the many cotton oil mills in the South none holds a more prominent position in the trade than does the Paris Oil and Cotton Company of Paris, Tex. Under the able management of Col. J. J. Culbertson this company has, within the past four years, come to the front not only in this country but abroad, where large quantities of its grades of choice butter oils are consumed. The company also make a specialty of cake and bolted and unbolted meal for export. As an indication of the high standard of the quality of its edible oils, a gold medal was awarded them at the Paris Exposition of 1896.

A perfect substitute for grain alcohol for use in the arts and manufactures is claimed by the Manhattan Spirit Company of Buffalo for their Columbian spirit and refined wood alcohol. By a new process all objectionable odors are eliminated from these products, making them absolutely pure and free from the defects formerly found in the wood spirit. They are represented by agents in nearly all the principal cities, and offer liberal discounts to buyers. This company are the representatives of most of the producers of the country, and control the best processes, as well as the widest experience of any concern connected with the spirit trade.

As manufacturers, proprietors and obbers the Smith, Kline & French Company of Philadelphia has attained one of the most conspicuous positions of any wholesale drug establishment in the United States. Its announcement on another page is interesting because of the varied character of stock to which it refers, but an inspection of the goods bearing the company's labels is more telling evidence of the excellent quality of its products as well as of the attractive manner of dressing them. We have much pleasure in commending the company's announcement in this issue to the careful perusal of the drug trade, both wholesale and retail.

The Wright & Hills Linseed Oil Co. of Chicago rank among the large concerns of the West. They are independent crushers, and are prepared to fill large orders for raw, boiled or bleached linseed oil, either in barrels or tank cars at rock bottom prices, and with a promptness characteristic of the Western business houses. Druggists' flaxseed, oil cake, oil meal and a special varnish oil are included in their products and all of their goods are guaranteed to be of the highest standard quality. Dealers throughout the country will find this company prepared to negotiate for business at any point that can be reached by rail or lake freight lines.

The Manhattan Oil Company, of which that veteran in the oil trade, P. M. Millspaugh, is president, is too well known to most of our readers to require an introduction. To those who recently became interested in oils and greases we may say that, although this is one of the oldest houses in the trade, it is thoroughly progressive and up to date. In addition to a full line of oils and greases it makes a specialty of olive, cottonseed, corn, palm and cocoanut oils. Its export trade is extensive, as the company handle large quantities and pack goods to meet the requirements of various countries. It also makes a specialty of supplying the soap trade.

The announcement of Messrs. Parke, Davis & Co. on another page of this issue indicates in brief the varied character of the demands now made upon a progressive manufacturer of pharmaceuticals in America. The production of anti-diphtheretic serum, one of the very latest of the most advanced discoveries in this school of theraphy, has occupied the most profound attention of this house, which has at the same time deemed the material daily wants of the well as worthy of scientific attention as the needs of the sick. This house may be said to have sprung into existence during the past twenty-five years, and it is one of the most distinguished which this paper represents.

P. M. MILLSPAUGH, Pres't. JOHN A. CLUSSMAN, Treas.

MANHATTAN OIL CO.,

51 Front Street, New York.

K R
Prime Tallow.

HYDRAULIC PRESSED
A
Tallow Stearine.

C
Refined Tallow.

Manufacturers, Importers and Dealers in Lubricating, Lard, Olive, Cotton Seed, Fish and other Oils; also Green Olive Foots, Saponified Red, Palm and Cocoanut Oils for Soapmakers' use. Stock always on hand. Orders filled on shortest notice. Special attention given to export business.

GOODS PACKED TO SUIT PURCHASERS.

Cable Address, "Regent, New York."

STANDARD OIL COMPANY

OF NEW YORK.

Thompson & Bedford Department

128 PEARL STREET, NEW YORK, U. S. A.

13 St. Ann Street, Manchester, Eng.
Blumenstrasse 15, Frankfort A/M, Germany
5 Puerto del Angel, Barcelona, Spain.
21 Esplanade Road, Bombay, India.

Billiter Buildings, 22 Billiter Street, London, E. C. Eng.
25 Boulevard Haussman, Paris, France.
Collins & William Streets, Melbourne, Australia.
21 Strand Road, Calcutta, India.

BEST

Petroleum Lubricants

OF GREAT BODY OR VISCOSITY AND HIGH FLASH.

Pale Spindle, Machinery and Engine Oils.

BAYONNE ENGINE OIL, In exclusive Use by the English Admiralty.

RAILROAD ENGINE AND CAR OILS **300° MINERAL COLZA OIL**

CYLINDER OILS

LUBRICATING GREASES **PARAFFINE SCALE AND WAX**

WORKS:

FRANKLIN, PA. OIL CITY, PA. PHILADELPHIA, PA. PITTSBURGH, PA. CLEVELAND, OHIO. BAYONNE, N. J. CLAREMONT, N. J. HUNTER'S POINT, N. Y. BUFFALO, N. Y. PARKERSBURG, W. VA.

Buyers or sellers of tallow, grease, stearine, oils, etc., desiring the services of thoroughly reliable and qualified brokers should communicate with W. D. Vandenhove & Co., 311 and 313 Produce Exchange, this city. The reputation for fair dealing and careful attention to the interests of their principals has gained them an extended clientage, and they are in a position to extend the trade of those who may secure their services.

To the late Dr. John Ellis is accorded more than to any other one man credit for the improvements in the manufacture of petroleum lubricants, which have gained for them the high place occupied by this class of products the world over. The quality of goods first introduced by him through the firm of Leonard & Ellis, has been maintained by his successors in that house up to the present time, and has made the firm name a synonym for the highest standard of quality.

Thomas Goulard & Co., whose card appears in this isue, are the officials inspectors and weighers of the Produce Exchange of this city, not only for cottonseed oil products, but also for lard, tallow and greases of all kinds. They also have branch houses at Chicago and Kansas City.

Among its early friends in the varnish trade the Reporter numbers the house of Pratt & Lambert, which long since gained its present position in the front rank of manufacturers of varnish and japans. The company has offices in all the principal cities and factories both here and in Canada. The patent dryer made by this company is distinguished by its freedom from sediment, and the other characteristics of a strictly first-class product. The numerous yacht owners among the readers of the Reporter are also especially reminded of the excellence of the company's star brand of spar finish.

Webb's alcohol is all that it claims to be, the acknowledged standard. Wherever in this country, or in many others, alcohol is used, there the name of Webb is known. The firm of James A. Webb & Son has been in business over two generations, and was associated with illuminants, such as camphene, before the discovery of petroleum. Old New Yorkers will remember "Webb's Emporium of Light," at the corner of Canal street and Broadway.

Few young firms have attained such a strong foothold with the paint trade as has the firm of Morris, Hermann & Co. of this city. They make a specialty of dry colors, but are also large manufacturers of pure paris green. They have branch houses at St. Louis and Chicago, where, for the special convenience of their Western friends they carry a complete stock of the products of their factory at Newark. Further information may be had by consulting their advertisement, which appears upon another page of this issue.

Notwithstanding the progress made by domestic manufacturers, several of the leading foreign makes of paints and colors still hold a prominent place in this market, due to the energy and altogether commendable methods employed by Messrs. Pomeroy & Fischer, who have for a number of years past been the leading representatives of these goods here. Conspicuous among their accounts are Messrs. Noble & Hoare's varnishes, Walkers, Parker & Co.'s white lead, and some of the best makes of English vermilion and other colors ground in oil and Japan. The firm is as substantial as the houses which it represents.

The American Cotton Oil Co.

Cable Address AMCOTOIL, N. Y.

No. 46 Cedar St **New York, N. Y.**

Manufacturers and Refiners of all grades Cotton Seed Oil, Oil Cake, Meal and Linters. Scouring and fulling soap. Oil packed in all sized tins, plain or decorated, for export, a specialty.

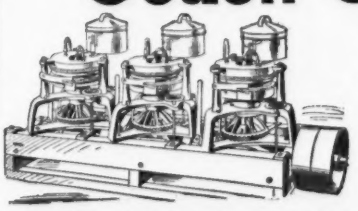
ARMSTRONG & McKELVY Pittsburgh.
BEYMER-BAUMAN Pittsburgh.
DAVIS-CHAMBERS Pittsburgh.
FAHNESTOCK Pittsburgh.
ANCHOR, ECKSTEIN } Cincinnati.
ATLANTIC, BRADLEY, BROOKLYN, JEWETT, ULSTER, UNION } New York.
SOUTHERN, SHIPMAN } Chicago
COLLIER, MISSOURI, RED SEAL, SOUTHERN } St. Louis.
JOHN T. LEWIS & BROS CO Philadelphia.
MORLEY Cleveland.
SALEM Salem, Mass.
CORNELL Buffalo.
KENTUCKY Louisville.

THESE brands of White Lead (see list) are not made by any patent or quick process, but by the "old Dutch" process of slow corrosion. They are the best; are the standard, and have been for years. Protect your interests by making sure the brand is right.

FREE By using National Lead Co.'s Pure White Lead Tinting Colors, any desired shade is readily obtained. Pamphlet giving valuable information and card showing samples of colors free; also cards showing pictures of twelve houses of different designs painted in various styles or combinations of shades forwarded upon application to those intending to paint.

National Lead Co., 1 Broadway, New York.

Coach Color Mills

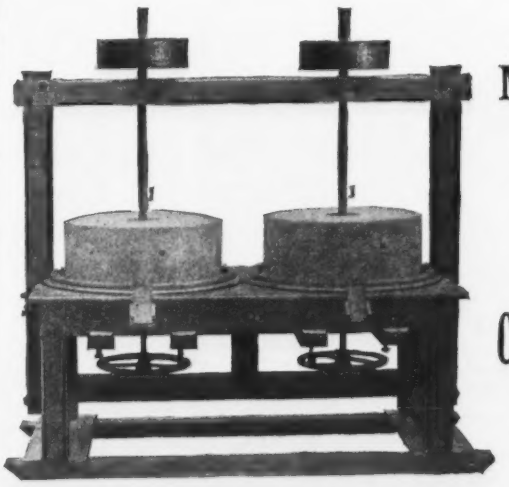


The cut shows a gang of three 15" water cooled mills. These mills have mixers attached and driven with gears.

Many improvements added lately.

Over 1000 of them in use.

WM. DANIELS' SONS CO., Providence, R. I.



WE MAKE

Mustard Mills

Paint Mills

AND

Mixers

C. O. Bartlett & Co.

Cleveland, Ohio.

Send for Circulars.

HIGHEST AND LOWEST PRICES AT NEW YORK YEARLY, 1872 to 1896 Inclusive.

Index No.	DRUGS.	1872. Low.	1872. High.	1873. Low.	1873. High.	1874. Low.	1874. High.	1875. Low.	1875. High.	1876. Low.	1876. High.	1877. Low.	1877. High.	1878. Low.	1878. High.	1879. Low.	1879. High.	1880. Low.	1880. High.	1881. Low.	1881. High.	1882. Low.	1882. High.	Index No.
1	Acid, carbolic, 1-lb. bot.			2.00		2.60		58	60	58	60	58		40	58	40	45	45		40	70	40		1
2	Acid, citric, kegs	1.00	1.24	1.18	1.30	1.12	1.22	78	1.03	74	78			61	63	53	60	56	69	57	64	60	63	2
3	Alcohol, domestic	1.72½	1.90	1.72	2.00	1.85	2.00	2.00	2.30	2.06	2.15	2.05	2.14	2.00	2.06	1.95	2.12	2.06	2.14	2.10	2.22	2.22	2.27	3
4	Alcohol, export																					35	40	4
5	Ammonia, carb., foreign	18	29	17½	22	17½		13½	17½	13½	14	13½	14	13½	17½	16	19	16¾	17½	16	17	16		5
6	Ammonia, carb., domestic																			16½	17	16½	17	6
7	Borax, crystals	31	47½	20	31	11½	20	11½	13½	9¾	12½	9	10	8½	9	8½	9½	9	12	12½	13¾	13¾	15	7
8	Caffeine																							8
9	Castor oil, cases	16	18½	16	20	17½	24	13¾	18	10½	15½	11½	15½	12	14	12½	15	10½	12	10½	14	12	15	9
10	Cod liver oil, Norwegian																			$34.00	42.00	39.00	65.00	10
11	Glycerine, Amer., cases	26	58	27		27		27																11
12	Quicksilver	80	97	94	1.26	1.30	1.65	70	1.58	14	90	45	62½	44	50	38	55	40	43	40	44½	38½	42	12
13	Sugar milk, pow'ed	30	35	35		35	38	38	95	42½	48	48		45		36	48	36	38	31	37	22	31	13
	BALSAM.																							
14	Copaiba	45	1.00	50	83	69	84	65	79	43½	70	27	50	27	34	32	67½	52½	70	52	64	52½	56	14
15	Canada fir	3.00	5.00	4.00	6.50	2.70	4.50	2.15	2.70	2.00	2.15	1.70	2.25	1.40	1.70	1.35	2.00	1.45	1.55	1.70	3.50	2.75	3.75	15
16	Peru	2.25	3.70	2.50	2.75	1.90	2.50	1.25	1.90	1.20	1.50	1.15	1.60	1.05	1.25	1.05	2.00	1.75	4.50	2.40	4.00	3.75	5.00	16
17	Tolu	45	86	51	1.00	70	1.20	1.05	5.00	1.35	2.50	1.00	2.50	70	1.05	50	85	55	67½	45	65	44	50	17
18	Tonca beans, Angostura	55	1.25	1.00	1.35	85	95	50	1.50	60	2.25	50	1.20	1.10	1.25	1.55	1.65	1.60	2.25	1.95	3.00	1.20	2.60	18
19	Vanilla beans, Mexican	$12.00	19.00	16.00	17.50	17.50	24.00	14.00	24.00	14.00		7.00	14.00	6.00	8.00	4.00	8.00	5.00	9.00	3.00	5.00	3.00	5.50	19
20	Cubebs	9	17	8	9	8	9	6½	10	8	9½	8½	9½	8¼	20	13	15	14	25	20	75	18	55	20
21	Saffron, American	75	80	58	85	43½	65	20	37½	18	30	18	20	20	22	20	30	25	75	25	65	35	42½	21
	ESSENTIAL OILS.																							
22	Anise	2.37½	3.60	2.50	2.90	2.30	2.60	2.30	2.75	1.45	2.65	1.45	1.70	1.70	3.00	2.25	3.00	1.70	2.50	1.90	2.15	1.65	1.90	22
23	Cassia	1.60	2.37½	1.45	2.15	1.10	2.45	95	1.12½	85	95	80	95	70	83	70	1.35	70	1.25	80	90	85	1.00	23
24	Citronella	1.08	1.60	80	1.08	77	82½	75	79	67½	75	75	90	70	1.00	75	1.55	1.15	1.50	77	1.20	65	75	24
25	Peppermint, tins	2.70	3.15	3.15		3.75	5.25	3.20	5.50	2.40	3.75	1.75	3.00	1.50	2.00	1.45	2.65	2.60	2.87½	2.35	2.85	2.25	2.50	25
26	Peppermint, cases			3.50	4.50	4.00	6.00	3.50	6.00	3.25	4.12½	2.75	3.75	2.25	2.75	1.75	3.15	3.00	3.15	2.50	3.00	2.50	2.85	26
27	Sassafras	82½	97½	53	71	47½	58	50	70	45	65	45	57½	33	43	37½	45	41	48	39	60	42½	55	27
28	Sassafras, artificial																							28
29	Wintergreen	4.50	4.95	4.45	5.25	3.80	5.50	3.00	4.00	2.80	3.15	2.30	3.50	1.80	2.75	1.75	2.12½	2.40	3.50	2.25	3.10	2.30	2.75	29
30	Wintergreen, artificial																							30
	GUMS.																							
31	Aloes, Curacao	19	25	20		20		19	30	18		18		17	18	9	17	9¾	10½	10	13	12	15	31
32	Arabic, sorts	18	20	18		16	18	16		16	20	20		15		13	15	15		9½	15	10	12½	32
33	Assafoetida	40	60	28	60	18	28	19	20	12	22½	12	15	13	15	14	16	14	16	12	16	14	26	33
34	Camphor, bbls.	53	72½	25	33	20½	31	23½	30	25¾	33	26	33	22½	28	25	29	24	30	23¼	26	23	24½	34
35	Tragacanth, Aleppo firsts																							35
	HERBS AND LEAVES.																							
36	Buchu, short	11	13	7	11	4½	7	4¼	5	4½	6¾	6	7¾	7	9	6½	9	8	25	10	18	12½	18	36
37	Coca, Truxillo																			40	90	40		37
38	Senna, siftings	10	15	11	13	10	13	10	16	16	20	19	25	12½	19	11	12½	9	10½	8½		8	13	38
	ROOTS.																							
39	Dandelion, German																	13		11	15	12	14	39
40	Gentian	5	5¾	5	6	5	6½	5	7	6½	6¾	5	6½	3¾	4¼	3	5½	4	6¼	4½	5	4¾	6½	40
41	Ginger, Jamaica, bleached	18	22	19	25	21¾	24	20¾	27	18½	20¾	17	18½	16½	17½	19	21	18	21	16	17	13	18	41
42	Golden seal					10	14	10	13	13	18	17	20	17		7¼	17	7½	8	8	12	16	35	42
43	Ipecac	97	1.50	82	95	84	1.05	90	1.10	93	1.00	1.00	2.00	1.05	1.75	1.05	1.40	1.15	1.30	95	1.20	85	96	43
44	Jalap	45	50	45		18	45	14	17	16	25	20	25	20		20	32	19	21½	18	20	15	18½	44
45	Orris, Florentine	15	18	20	26	22	26	18	22	18		18		18		16	18	15	15½	13½	16	12½	16	45
46	Sarsaparilla, Mexican	12	18	9	15	11½	12½	11½	22½	11½	18	10	18	9	10	8	10	8	10	8	10	7½	10	46
47	Senega, Minnesota	90	1.15	65	1.17	65	95	75	95	60	95	65	85	45	60	38	60	50	60	50	55	50	57½	47
48	Opium	3.95	6.25	5.12½	6.25	5.25	8.12½	4.25	6.87½	4.12½	5.62½	3.70	5.50	3.37½	3.65	3.37½	5.00	4.00	7.00	3.00	6.00	3.12½	3.50	48
49	Morphine, domestic	4.75	5.35	5.00	5.90	5.30	6.70	4.25	5.65	4.10	4.75	4.10	5.00	3.50	4.00	3.60	4.00	4.00	5.15	3.50	4.75	3.53	3.80	49
50	Morphine, foreign																			2.90	4.20	2.95	3.10	50
51	Quinine, American	2.45	3.10	2.50	2.75	2.40	2.50	2.20	2.30	2.20	3.00	1.75	4.50	2.90	3.75	2.60	3.00	2.60	3.40	1.85	3.00	2.00	2.50	51
52	Quinine, foreign	2.00	3.00	2.70														2.60	3.05	2.40	3.00	1.50	2.75	52
53	Cinchonidia											1.50	1.75	1.50		1.50		1.45		65	96	90	1.00	53
	SEEDS.																							
54	Anise, Italian	18	22	14	20	14	14½	13	22	14	17	13	16	13		12½	13	10	12½	7⅞	10½	7	8½	54
55	Canary, Smyrna	2.00	3.60	1.90	2.50	2.27	4.75	6.50	11.50	2.40	8.00	1.95	2.50	1.45	1.90	1.60	1.65	1 40	2.00	1.35	2.10	3	3⅝ A	55
56	Caraway, Dutch	9¾	11	10	11	9½	11	10	12½	11⅓	13	11	11⅓	9½	11	8	9	7	8	6½	7⅛	6½	6¾	56
57	Celery																	11	20	12	16½	12	12½	57
58	Coriander, natural	8½	9½	8	9½	6	9½	5	6½	5	7½	7½		6	6¼	5½	6	4¾	6¼	4	6	5½	6½	58
59	Hemp	1.55	1.60	1.55	2.25	1.80	2.25	1.75	2.02½	1.80	1.95	1.50	1.80	1.30	1.55	1.25	1.30	1.15	1.25	1.20	1.65	1.17	A	59
60	Mustard, Calif., white	4¾	9½	4¾	5	5	5½	4¼	6½	6½	9½	9		6	8½	*7	8½	4	5½	4	5	3¾	4	60
61	Poppy													7		7		6½	9	8½	9	8½		61
62	Rape, German					2.50	2.75	2.50	3.75	2.85	3.50	3.00	3.50	2.75	3.00	2.35	2.75	2.05	2.20	2.05	2.25	3½	4 A	62
63	Shellac, D. C.	44	50	50	64	60	85	56	85	39	54	23	40	20	24	22	45	38	50	35	40	32	35	63
64	Shellac, T. N. and native	36	41							27	30	19	21	17	19	18½	33	33	45	29	32	23½	29	64
65	Spices (cloves), Zanzibar															* Yellow now quoted.				32	35½ A Quot. changed from bushels to lbs.	24	29	65
	OILS.																							
66	Linseed, raw, American																			57	65	53	63	66
67	Linseed, raw, Cal.	74	90	85	1.00	75	97	66	77	52	64	55	56	57	63	60	82	55	60	58	70	57	68	67
68	Lard, prime	70	83	68	78	77½	1.20	1.02½	1.27½	82½	1.06	68	95	48	68	48	65	56	71	71	96	88	1.10	68
69	Cottonseed, crude	42½	54	40	40	40	55	45	65	38	52½	40	50	33	50	33	41	32½	45	33½	37	37	50	69
70	Cottonseed, sum., yellow	49	60	48	58	47	61	52	70	47½	59	49	55	41	58	40	47	40	51	42½	48	47	60	70
71	Cod, domestic	62	65	63	72½	60	65	50	70	52	55	48	55	38	52	32	48	37	45	38	43	38	51	71
72	Cod, Newfoundland	65	70	68	75	67½	68	62½	70	62	65	56	65	41	57	35	50	42	48	43	45	40	52	72
73	Olive	1.20	1.35½	1.15	2.20	1.12½	1.20	1.15	1.22	1.15	1.25	1.00	1.22½	1.08	1.15	95	1.05	90	1.05	92½	95	92½	1.00	73
74	Neatsfoot, prime	1.10	1.20	1.00	1.10	90	1.00	95	1.10	90	1.10	80	90	70	80	67½	75	65	75	45	75	70	85	74
75	Palm	7½	8¼	7⅞	9	7½	8	7¾	9	8½	8¾	7¾	8¾	8¼	8½	6	7¼	5½	6½	5½	6	7	8	75
76	Red, saponified	50	54	48	57½	48	60	57½	75	52½	65	49	57½	50	52½	46	48	45	48	47	48	50	60	76
77	Paraffine, 25-degree	28	40	32½	38	24	28	26	28	26	30	30	31	17	31	17		17	22	19	22	18	19	77
78	Cocoanut, Ceylon	9¼	11	8¾	9¾	9¾	12	9½	11½	10	11	9¼	10	9¾	10¾	7¾	10¾	6½	8¾	6⅝	7¼	6⅝	8¼	78
79	Corn																							79
80	Degras, German							7½		6	7½	5½	6	5½	6	4	4½				French	8½	9	80
81	Paraffine wax candles																	18½		18½		19½	18½	81
	NAVAL STORES.																							
82	Spirits turpentine	61	73½	40	67	35½	48	31½	41¼	29½	49	31¼	47½	27½	33	26½	30½	25½	47	41½	56½	44¾	56½	82
83	Rosin, strained	3.75	4.90	2.50	3.75	2.15	2.40	1.65	2.10	1.55	2.40	1.75	2.50	1.35	1.72½	1.25	1.40	1.35	1.80	1.75	2.20	1.65	2.47½	83
	CHEMICALS.																							
84	Alum	2⅝	3¼	3	3⅝	2¾	3	2½	2¾	2½	2⅝	2½	2⅝	2½	2⅝	2¼	2½	1⅞	2	2	2¼	2¼		84
85	Bicarb soda	4.75	6¼	5½	6½	4½	5⅝	4¼	4½	3¾	4¼	3¾	4	3½	3¾	2⅞	3½	3	3¼	3	3⅜	3⅜	3.70	85
128	Bleaching powder	3⅜	6¼	2½	2⅞	1.97½	2¼	1.45	2	1.30	1.1⅜	1.35	1.45	1.15	1½	1.02	1.20	1.06	1⅜	.85	1.40	1.07½	1½	128
86	Chlorate potash	40	57	33	41	22	30	19½	23	20¾	23	18½	22½	16½	18¼	15⅜	18	15½	17⅞	15½	15¾	15⅜	15½	86
87	Cream tartar, American	31½	3.62	33⅜	34½	34	37½	33	35½	29½	34	24	30	23½	29½	23	34	30½	33	31	32½	30	33	87
88	Sulphuric Acid, 60-degree	1½		1½	2¼	2	2½	1½	2	1¼	1¼	1	1½	1	1⅜	⅞	1⅜	1	1¼	1¼	1.45	1	1¼	88
89	Oxalic acid	23	29	16½	22½	13½	18½	10½	13½	9¾	11	9½	10⅝	8⅝	9½	8¼	9¼	8	9⅝	9	9¾	12¼	13½	89
90	Sal ammoniac	11	11¾	10⅜	11⅝	9	10⅝	10	11⅞	10½	11	10	10½	10	11½	8	12	8	12	11	11⅝	10½	11	90
91	Sal soda	2⅛	3	1.70	2¼	1¾	2½	1⅝	1⅞	1⅝		1.20	1.35	1½		1½	1.60	1.10	1⅞	1.05	1.10	1.00	1.10	91
92	Soda ash	2.75	4½	2⅝	3¼	2¼	2¼	1⅞	2¼	1.85	1.95	1.77½	1.95	1½	1⅝	1.52½	1.60	1½	1⅞	1½	1.60	1.60	1.70	92
93	Sugar of lead, brown	10½	12	12¼	13	12	13	12	12¼	10	12	7	10	7½	7½	7	9	9	10	8½	10	6¾	8½	93
94	Sugar of lead, white	15⅝	19½	15½	18	16½	19½	17⅞	18½	15	18½	18¾	19	18½	19	13	19	12¾	14¾	15	16	13	15¾	94
95	Tartaric acid, crystals	51	55	44	51	44	50	44	45½	41	44½	40	44	40	46½	44½	50½	43½	47½	42	46½	46½	48¾	95
96	Tartaric acid, powdered	57	61	48	57	48	53	47½	52½	46½	52	46	48	45	48	45½	51	44½	48¾	43	47½	47½	49½	96
97	Vitriol, blue	10½	11¼	10¾	13	9½	10¾	8	9½	7⅝	8¼	7	9	6⅜	7¼	4⅞	7¼	7⅛	8¾	7	7¼	6⅞	6½	97
	DYES.																							
98	Albumen, egg	85	1.10	75	87½	75	1.00	80	1.00	80	1.00	85	1.00	80	85	65	90	75	83	65	85	70	78	98
99	Albumen, blood	25	30	27	30	27	85	50	85	25	50	22	23	18	36	32	70	42½	55	22½	40	17	23½	99
100	Cochineal, Ten., silver	60	75	53	60	45	53	45	49	44	65	50	70	54	59	52	80	55	82½	40	50	28	43	100
101	Cutch, boxes	4¾	7½	4¼	5¾	4½	7	6	7	5	6¾	5	6¾	4¾	5¾	5	9½	8½	9¼	5½	8	6	7⅝	101
102	Gambier	2.00	5½	5	6⅝	5¾	6½	5⅝	5⅞	5	5½	4¼	5	3⅞	4¼	3.60	4½	3½	4⅝	3⅞		3¾	7	102
103	Indigo, Bengal	1.00	1.50	.90	1.00	.90	1.15	1.00	1.10	.90	1.25	1.00	1.25	.75	1.00	.90	1.00	1.00	1.35	.75	.90	.85	1.10	103
104	Sumac, Sicily	110.	115.	120.		97.50	115.	97.50	115.	105.	115.	100.	110.	80.	95.	75.	80.	75.	80.	75.	80.	65.	75.	104
105	Bichrom. potash	19½	22½	20¾	21	17	20¼	14¼	18¼	14	16½	12¼	14½	11½	14	11¼	16	11½	16	15	15½	15½		105
106	Prussiate potash	29	50	30	30½	30	31½	30	33½	26	30	22	26	22	23	21	26	25½	26½	24½	26	24	24½	106
107	Oil cake, linseed, dom	$36.00	41.00	36.00	41.00	38.50	45.00	40.00	43.50	39.00	41.00	34.00	40.00	29.00	33.00	27.00	31.00	31.00	35.50	30.00	31.00	27.00	30.00	107
108	Oil cake, cottonseed	26.50	32.50	21.00	27.00	32.00		32.00		26.00		24.00	32.00	21.50	25.00	23.00	24.00	25.50	28.50	26.00		26.00	26.25	108
	PAINT.																							
109	Prussian blue	35		35		35		35		35		30	35	30		30	60	30		30		30	42½	109
110	Ultramarine blue	19		12	19	12	13	13		13		13	14	14		14		14		14		13	14	110
111	Sienna Ital., Ct. p'd.	9	12	9		9		7½	9	7½		8		8		6½		6	6½	6		4⅝	5½	111
112	Sienna Amer., Ct., p'd.	3½		3	3½	3		3		3		2½		2½		2½		2½		2½		2½		112
113	Paris green	20	25	20	25	20	22	20	22	18	29	18		17	30	16	17	14	20	15	18	15	20	113
114	Indian red	10	11	10	10¼	7	9	7		7		7		7	7¾	6½		6½		5	6½	5		114
115	Litharge, Amer. Pow.	9		9		8¾	9	8¾	9	10		8¾		7½	8¾	5	7½	4½	6½	6	7	5¾	6¾	115
116	Red lead, Amer.	8¾		8½	8¾	8¾		8¾		9		8	8¾	7¼	8	5	7¼	4½	6¼	6	7	6	6½	116
117	Vermilion, Am., Irish	90	1.00	90	1.07	1.05	1.30	1.30	1.75	1.00	1.75	72½	1.18	50	72½	55		51½	55	54	60	49	55	117
118	Venetian red, Eng.	2½		2¼	3½	1½	2	2¾		1.90	2½	1.34	1.96	1¾		1.35	1.55	1.35	1.42½	1.40	1.55	1.40	1.55	118
119	White lead in oil, Eng.	8½	9¾	8½	9½	9	9¼	9	9¼	9		9¼	10	9¼		9¼		9½		9½		9	9½	119
120	White lead in oil, Am.	9½	10	9¼	10	9¼	10½	9	9¼	8½	9	6¾	8½	7		6¾	7¾	5½	8¼	5½		6	6½	120
121	Whiting	1.00		85	95	75	85	65	80	60	65	60		40	60	62½	40	40	50	60	55	37½	45	121
122	China clay	19.00	21.00	20.00	35.00	22.00	30.00	20.00	25.00	15.00	20.00	15.00	18.00	18.50		18.00		16.00	18.00	16.00		14.00	16.00	122
123	Chalk																					2.25	3.00	123
124	Chrome yellow	18	22	12½	18	12½		12½		12½		12½		10	12½	10		10		10		10		124
125	Ochre, Rochelle	1½	3¾	1.60c	3½	1	1½	1.75c		1.75c		1.50	.75	1.40	1.50	1.40		1¼	1.40	1.15	1.40	1.15	1.25	125
126	Orange mineral, Amer.	10½	12½	11	12½	11¼	11½	11¼	11¾	11	11¾	11¼		9½	11½	8¼	8¾	8	8¾	8½	8¾	7½	8¼	126
127	Glue, white	35		35		35		35		35		36	38	32	36	32		32		27	32	28		127

NOTE.—Quotations for imported merchandise are, for the most part, in gold during the years when there was a premium upon that metal, while corresponding articles of domestic production are quoted on a currency basis.

HIGHEST AND LOWEST PRICES AT NEW YORK YEARLY, 1872 to 1896 Inclusive.

Index No.	1883. Low.	1883. High.	1884. Low.	1884. High.	1885. Low.	1885. High.	1886. Low.	1886. High.	1887 Low.	1887 High.	1888. Low.	1888. High.	1889. Low.	1889. High	1890. Low.	1890. High.	1891. Low.	1891. High.	1892. Low.	1892. High.	1893. Low.	1893. High.	1894. Low.	1894. High.	1895. Low.	1895. High.	1896. Low.	1896. High.	Index No.
1		30	40	30	35	25	35	23	25	26	35	25	30	29	34	23	33	18	23	17	24	19	24	11½	20	17	23	15	23	1
2	18	56	45	48	44	49	49	65	50	58	49	53	42	48	39½	4½	39½	52	42½	45	44½	45½	36½	44½	36½	37½	35½	37½	2
3	2.21	2.25	2.15	2.16	2.05	2.17	2.07	2.17	1.98	2.18	2.00	2.22	1.98	2.10	1.98	2.22	2.22	2.30	2.20	2.54	2.18	2.54	2.18	2.52	2.29	2.36	2.26	2.32	3
4		36	38	27	34½	27	32	32																					4
5		15½	16	10¾	11	10½	11	8¾	10½	7¾	8½	7½	7¾	7¼	7¾	7¾	8½	7¾	8½	7½	7¾	7¼	8¼	8	8¾	8½	8	8¼	5
6		16	16½	9½	11½	11	11¾	9	11	8¼	9	8	8¼	8		8	9		9					8	8¼	8	7½	8	6
7		11½	14	9	11½	7¾	9	7¼	7¾	6¼	7½	8	9¼	8½	9½	9	10	8¾	10	8½	8¾	8	1.5	8½	5	86	5¼	6	5	6	7
8																									3.00	7.75	4.50	9.25	5.25	6.50	8
9		15	16	17	17½	17		17		13	17	12¼	14	12¼	14¾	13⅞	14⅝	12	12½	12½	14	14	14½	11⅜	13	10½	12	9½	12½	9
10	59.00	95.00	59.00	110.00	30.00	50.00	24.00	30.00	27.00	30.00	22.00	28.00	19.00	21.50	19.00	19.50	13.50	23.00	21.00	23.00	19.00	22.00	19.50	28.00	27.00	49.00	43.00	60.00	10
11		24	26	15	24	14¼	15½	15½	24	24		17½	24	11	21	16	18	15½	16	13½	18	13	13½	11½	13	11½	17	10½	17	11
12		36	39	36	48	42½	48	42	54	50	53½	56	65	56	69	68	74	60	70	52	64	50	54	45	50	48	54	48½	53	12
13		22	26	25	28	28		27	28	19	27	17	19	15	16	15	29	24	27½	17	24	11	17	8	10½	9	16	11½	18	13
14		45	48	38	46	31	40	29	31	40	56	56	67½	53¾	70	60	70	45	80	33	45	33	38	32	38	31½	33	32	50	14
15		2.60	2.75	2.60	2.75	2.35	2.65	2.25	2.60	2.60	3.25	2.50	3.25	2.00	2.50	1.75	2.10	1.70	2.10	1.70	2.34	2.35	3.75	2.40	2.37½	1.90	2.40	1.65	1.90	15
16		1.80	3.30	1.70	2.00	1.25	1.75	1.10	1.25	1.10	1.25	90	1.12½	85	95	85	1.50	1.15	1.55	95	1.25	1.00	1.65	1.40	1.85	1.50	2.50	1.85	2.30	16
17		43	47½	38	47	33	38	30	35	31	37	29	34	28	33	28	35	25	30	22½	30	23	26	24	27	26	52½	45	65	17
18		1.10	2.25	1.35	2.00	1.20	1.50	1.30	1.70	1.30	1.35	1.25	1.35	1.25	1.40	1.40	2.00	1.75	1.80	1.75	2.25	1.75	1.90	1.25	2.00	1.25	2.50	1.75	2.50	18
19		3.00	4.50	4.00	4.50	3.00	4.00	3.00	8.00	6.00	8.50	2.50	6.00	3.50	4.50	4.50		4.00	4.50	2.75	4.25	4.25	6.00	5.50	8.00	6.00	8.00	7.00	9.00	19
20		35	1.25	40	1.25	40	90	90	1.25	85	1.25	1.40	1.75	1.25	1.50	1.15	1.40	53	90	30	50	16	32½	12	17	8	12	6	8	20
21		30	31	22	32	22		17	22	12	17	13	28	22	26	20	24	20	22	22	25	25	75	25	45	35	42	28	40	21
22	1.70	1.85	1.65	1.80	1.55	1.75	1.55	1.65	1.65	1.90	1.55	1.75	1.52½	1.65	1.55	1.65	1.47½	1.60	1.45	1.60	1.37½	1.55	1.40	2.37½	1.50	2.25	1.80	2.55	22
23	78	87½	90	1.10	80	85	60	80	60	70	72½	80	80	1.15	95	1.15	93	1.00	80	95	75	82	80	1.20	1.00	2.25	1.65	2.25	23
24	62½	65	47½	60	37½	47½	33	37½	32	33	32	33	31	33	28	31	27	30	25	27	25	27	25	45	25	45	26	47½	24
25	2.20	2.60	2.50	3.00	2.75	4.37½	2.75	3.60	1.90	2.75	1.75	2.40	1.80	2.30	1.80	2.40	2.45	2.50	2.15	2.50	2.15	2.45	1.70	2.45	1.70	2.00	1.20	1.85	25
26	2.55	2.90	2.75	3.25	3.00	4.50	3.50	4.00	2.60	3.60	2.40	3.25	2.30	3.35	2.30	3.20	2.90	3.25	2.90	3.00	2.50	2.85	2.20	2.85	2.15	2.40	1.70	2.20	26
27	44½	52½	43	45	39	43	34	39	33	43	45	70	36	55	36	44	34	39	35	39	35	39	34	37	32	36	36	45	27
28																			25	31	25		21	25	21	26	26	40	28
29	2.10	2.65	1.85	1.95	1.85	2.00	2.00		1.65	2.00	1.75	2.00	1.65	1.90	1.70	1.90	1.70	1.75	1.70	1.80	1.45	1.70	1.30	1.45	1.20	1.35	1.20	1.25	29
30																			1.15	1.45	1.00	1.20	75	1.00	65	95	45	65	30
31	11	13	9¾	11	6¾	9¾	5	6¾	5	5¾	3¾	5	3½	3¾	2½	4	2	5	2	8	2½	2¾	2½	5½	3	3½	2¾	3¾	31
32	11½	13	17	24	24	40	38½	57½	50	57½	50	52	45	52	30	44	23	25	18	21	14	18	11	16	14½	16½	14½	20	32
33	12	15½	12½	18	11½	16	8½	11½	8½	9	8½	10	8	8½	6½	8	8		8	20	8	25	12	25	13	25	12	15	33
34	22½	23	16	21	16	23	22	23	22	23	24	28	30	39	39	45	43	46	43	50	45	50	37	45	37	59	43	60	34
35			45	60	45		40	45	41½	47	41	47	41	46	45	46	45	50	46	55	57	60	54	70	57	61	68	71	35
36	8½	16	7	8½	6	6½	6	7	7	20	5	7	4	5	5	10	10	14	10	30	13	30	6½	12	6½	12	6½	12	36
37	40	45	45	90	50	1.35	22	50	25	35	25	35	14	25	16	22	20	45	25	55	13	28	13	20	18	22	14	21	37
38	11	13½	11	17	13		13	29	29	32	19	30	16	19	8	16	10	18	10	17	6	10	5	7	5½	7	5½	10	38
39	12½	13½	10	13	10	11	10		10		10		10	10½	10	14	10	11	7½	11	7½		6¾	7½	5¾	6¾	5¾	8½	39
40	7¾	13	5½	8¾	4¼	4½	4¼		3	4¼	4	4½	3¾	4½	3¾	44	3¾	4	3¼	4¼	3½	4¼	3¼	3½	4½	7	4½	7	40
41	16		14	16	9	11½	9		8¾	12	10½	12½	11	17	12	16	13½	14	9	14	13	15	12	15	12	16	16	19	41
42	26½	27	16	25	13	14	13	14	14½	35	35	60	31	44	23	31	20	25	20	28	20	23	18½	23	17½	22½	24	29	42
43	70	80	75		82½	85	82½		80	2.25	1.25	1.80	1.70	1.85	1.75	1.95	1.90	2.15	1.95	2.25	1.35	1.75	90	1.30	1.05	1.25	1.25	1.45	43
44	20	21	15	20	12	13½	7	12	10½	12	11	13	12	17	17	24	23	30	25	30	21	29	19	27	16	25	10	17	44
45	12½		9	10	8½	9	8½		7	11	11	12	11	13	12	21	21	35	32	35	18	33	18	22	15	20	16	20	45
46	8½		8¼	11	10	14	8¾	10	6¾	8¾	6¾	7¼	5¾	7¾	7	9½	8½	10	8½	10½	7¾	10½	6¼	10½	5¾	7½	5	8¾	46
47	44		45	50	43	46	35	43	32	40	44	45	38	60	32	38	30	39	30	57½	35½	55	27	38	24	29½	21	29	47
48	2.50	3.25	2.75	2.90	2.25	2.85	1.70	2.20	2.20	3.70	1.65	2.87½	1.87½	2.40	2.35	2.70	1.80	2.25	1.50	1.87½	1.80	3.15	1.75	3.25	1.60	2.30	1.95	2.30	48
49	3.25	3.60	3.15	3.40	2.15	3.20	1.75	2.25	2.20	3.10	2.10	2.85	2.40	2.50	2.30	2.70	1.80	2.15	1.40	1.80	1.45	2.00	1.75	2.20	1.30	1.75	1.30	1.45	49
50	2.60	3.10	2.50	2.80	2.35	2.50	1.85	2.30	2.40	3.00	2.00	2.75	2.25	2.80	2.10	2.65	1.35	2.10	1.35	1.55	1.55	1.95	1.65	2.00	1.35	1.70	1.30	1.60	50
51	1.60	1.80	93	1.75	75	98	49	73	39	53	43	49	32	40	37	71	24	25	20	24	20	25	22	27½	25½	27	17½	27	51
52	1.50	1.52½	90	1.75	68	93	58	70	40	58	32	44	23½	30	25½	30	18½	22½	17½	19½	17¾	22½	25		25				52
53	75	95	33	75	14	33	8	14	3	8	4	5	4		4		4		3¼	3½	3	3½	3		2½	3	2½	12	53
54	7	7¼	7	7½	8½	9¾	9¼	12	9	13	8	9	7	8	6½	7	6	7	7	10½	9½	11	5½	10	6½	7½	5¼	6½	54
55	3½	4	3	3½	2½	2¾	2⅜	3	2½	3½	2½	2⅝	2¼	2¼	1⅞	2½	1¾	2⅜	2½	4½	2⅜	4¾	2⅜	3¼	2½	2½	1⅝	2½	55
56	6	6½	5¼	5⅝	2¼	2⅝	2¼	10⅝	2⅜	3½	2⅜	2⅝	2⅛	2⅜	1⅞	2⅜	1⅞	2⅜	2⅜	3¾	2⅜	4¾	2⅜	5	2⅜	2⅝	2	3¼	56
57	12	14	11½	13⅝	9½	11½	7	9½	7	8	8⅜	9¼	8⅜	11	8	12	12	16½	8	25	8¾	16	8	18	8	13	8½	13	57
58	6½	7	5½	7½	5⅝	7	4½	5⅝	4½	5	4	4½	4	4½	3½	5	3½	3⅝	3¼	3½	3	5¼	5¼	9	4	7½	2¾	4	58
59	3½	4	4		3	3½	2¾	3	1½	2¼	2½	2⅝	2½	2⅝	2⅜	2⅝	2⅜	3¼	2	2⅝	2⅜	2⅝	2⅜	2½	2½	2½	2¾	2 3-16	59
60	3½	4	4¼	5	4¼	5½	3¼	5½	3½	4¼	3½	4½	2⅞	3½	3¼	3½	3½	4⅜	4⅜	8	4	8	3¼	4	2½	3½	2⅞	3	60
61	6⅜	8½	6¾		6¾		6¾		5½	6¾	5½	6¾	5¼	12	5¼	7½	6½	7½	6½	8½	6	10	3⅜	6	3⅜	3½	4	2⅜	61
62	4½	5¼	3¾	4½	3¼	3¾	3	3¼	3	3¼	3¼	3⅞	3⅜	3⅞	3⅜	4½	3	4½	2⅞	3½	2¾	2⅞	2¼	2⅝	2¼	2⅝	2½	2.5-16	62
63	32½	37	20	31½	20	20½	17½	20	16½	18	18	25	23	27½	27½	32	22	32	22	28½	27	30	33	52	35	52	28	33½	63
64	20	24	20	22			12½	14½	10	12½	10	15	14½	21	17	25	16	25	19	21½	21½	24	26	27	26	29	20	25	64
65	14½	23	11¼	12½	10½	13	13	18	24½	27	17	23	12½	21	9¼	12½	7⅝	9¼	2¼	6¾	5⅝	9½	5¼	7	4¾	6	4½	4¾	65
66	53	57	51	57	44	52	39	44	41	53	54	58	58	60	58	62	37	58	37	48	37	50	47	56	42	59	31	42	66
67	57	60	52	58	48	52	51	49	51	56	55	60	58	62	62	65	56	62	56	58	58	62	54	62	48	59	50	52	67
68	73	90	58½	78	51	59	48	52½	53	64	62	80	53	70	49	53	49	56	54	85	65	1.07	55	70	51	54	36	52	68
69	36	40½	34½	40½	26	34½	26	33	32	35	33	45	27	47	27	34	25	32	24½	43	27	57	24½	31½	22	25½	19	24½	69
70	43	48	40	45½	32	40	32	40	38	45	39½	55	33	56	33	37½	28½	40	28½	46½	34	63	28	36	26½	29	23	28½	70
71	42	52½	36	50	32	38	28	34	30	33	30	37	30	36	31	32½	32	43	28		26	39	28	38	27	30	24	27	71
72	45	53	45		42	45	42	45			36								38	42	40	42	30	40	29	33	26	29	72
73	85	92½	86	92	80	90	76	81	66	75	66	74	71	73	67	93	60	74	56	64	55	62	52	60	52	56	46	53	73
74	70	85	75	61	61		61		60	61	60	76	57	76	57		55	60	50	55	50	85	50	60	55		55		74
75	6½	8	6½		6	6¾	5½	6	4¾	5½	4¾	6	5	6½	5½	6¾	5½	6⅝	5½		5½	7¾	4⅜	5¾	4½	5	4⅝	5	75
76	50	60	45	55	40	43	38	45	30	33	33	43	4¾	5	4¼	4¾	4½	5¾	4½	4⅝	4½	7½	4¼	4¾	4¾	4⅝	3¼	4¼	76
77	13	18	11	14	10½	11	8½	10½	8	9½	9½	10½	10½	11	11½	12½	12½	7	10	12½	10	11	9½	11	11	9½	11	11	77
78	7¼	7½	6½	7⅝	5¾	6¾	5¾	6⅝	5⅝	6⅝	5⅝	5½		5⅝	5⅝	7¾	5¾	7	4.95	5¾	5¼	6¾	5½	5⅝	5	5¼	5	5½	78
79																									32	34	23	30	79
80	9	10	9	10	9		9		9								7 (Ger.)		2½	3	2	2¼	1½	2¼	1⅝	2	1⅝	1⅞	80
81		18½	14	18½	11	14	9½	11	8½	9½	9½	10½	8 B—by the lb.	9½	8	9½	9	9½	8	9	9½	10	9½		9½	11	11		81
82	35	53	31½	34½	30	38	33	42	31	39	38¾	46	38½	46½	37½	44½	34	40	28½	43	25½	36	27¼	32	27¼	36	24	31	82
83	1.47½	1.65	1.22½	1.47½	1.02	1.22½	1.02½	1.07½	97½	1.20	97½	1.20	1.00	1.20	1.20	1.47½	1.32½	1.67½	1.22½	1.45	90	1.42½	1.05	1.40	1.35	1.70	1.57½	2.00	83
84	1⅞	2⅛	1⅞		1⅜	1⅜	1⅜		1.25	1⅜	1⅜		1⅜		1.40	1⅜	1.45	1.65	1.45	1.75	1.75		1.60	1.75	1.60	1.65	1.60	1.65	84
85	3⅜		3⅜	3½	3⅜	3¾	3¼	3⅜	3	3⅜	3	3.10	2	3	1½	3	3	3.50	2.10	3.50	2.75	3.00	1.87½	2.90	1.75	1.87½	1.50	1.75	85
128	1½	1⅝	1.80	2¼	1.45	3⅝	1.45	2.06	1.80	2.10	1.85	2¼	1½	1.70	1¼	2.20	1.70	2¼	2¼	4¾	1.85	2.30	1.45	1.95	1.60	2.06	1.45	1¾	128
86	14½	16	15½	16	15½	18½	16	18½	15	16	15		13	15	11	13½	10½	11	10½	18	14½	20	10¼	14½	9	10	7⅝	9¼	86
87	30½	32	31½	33	30½	34¼	34¼		34¼	34½	31¼	31	31	23½	24½	28	23	24½	19½	23	18½	23	17	17½	17½	25	22½	27	87
88	1	1½	1⅛		.90	1⅛	1		90	1	99		80	90	80	90	75	75	75		70	75	60	70	60		60	80	88
89	11¼	11½	10	11¾	7¼	10	6½	7¼	5⅝	8	6½	8	5½	9½	6	7½	6½	7⅝	6	6½	6	6⅝	6¼	7¾	6⅝	7¼	6⅝	7¼	89
90	10½		7¼	10½	7¼	9½	8		8		8	8	8	8½	8½	8⅝	6	8¾	5½	8¼	8¼	8¾	8¼	9¼	8¼	9¼	8⅝	9¼	90
91	1.02½	1.07½	1.02½	1.10	1.00		1.00	90	80	95	95	1.00	75	95	90	95	1.00	1.05	90	95	87½	1.05	65	87½	65		60	65	91
92	1.50	1.60	1.40	1.55	1.30	1.40	1.25	1.37½	1.25		1.12½	1.25	1.22½	1.40	1.40	1.62½	1.55	1.60	1.55		1.15	1.55	1.15	1.40	95	1.15	90	1.10	92
93	6½	7	5¼	6	5½	6½	6½		5½	6¼	6½	7½	7½		6	7½	5	6	5⅝	6	5½	5¾	5¼	5½	17½	26	4½	5	93
94	12	12½	10½	13	10½	11½	11½	12	12	12½	.12½	13	12	13	12		12		11	12	10¾	11	8¼	10¾	4¾	5½	7	7½	94
95	46½	48½	38	44	38	43½	43½		43	43½	41	43	33	41	31	34	30	33	24	33	22½	24	17½	22½	22¼	30	28½	33	95
96	48	49½	39	45½	39	44½	44½		44	44½	42	44	34	42	32	35	31	34	25	34	23	25	18	23	22½	30½	29	33½	96
97	5½	5¾	4¼	4¾	4½	4½	4½	4¼	4½	4¾	4½	5¾	5½	5¾	4½	5¾	3½	4½	3¼	3½	3¼	3½	3¼	3¾	3¾	3¾	3.65	4	97
98	55	75	37½	55	35	37	34	35	33	34	33	70	68	72	39½	68	33	39½	30	50	50	63	45	63	42¼	48	48	50	98
99	17	18	14	18	14	23	17	23	16½	17	14	19	19		16	19	15	18	14½	15	14	14½	12	14½	14	25	25	28	99
100	22½	26	19	23	29	32	30	33	30		30		27	30	27		24	27	24		24		24		24	28	28		100
101	6	6¼	5½	6¾	5½	6¼	6½	6¾	6½		7¼	7¾	6¾	7¼	6¾		6¾	7½	6¾	7½	7	9	5¾	8½	5¾	6	4½	6	101
102	6	6¾	4¾	6¾	4¾	5	4¾	5	4½	5½	5¾	5¾	5½	5¾	5½	5⅞	4½	5½	4⅝	5	3¾	5¼	3.90	4½	4½	5½	3½	4¼	102
103	.85		.85		.60	.85	.60	.90	.95	1.00	.78	.95	.78	.80	80		.70	.90	.70	1.15	1.15	1.25	.80	1.25	.80		.57	.80	103
104	70.	100.	100.	120.	100.	82.50	72.	82.50	68.	72.	62.50	62.	57.50	65.	62.	63.	64.	75.	62.50	64.	62.	80.	60.	75.	50.	60.	42.	50.	104
105	13	15½	10½	13	9½	10½	9¼	9¾	9½	10½	10½	11½	11½	11¾	10	10½	9	10	9½	10½	9	10½	8¾	10	10		10		105
106	23½	24½	22½	24½	21½	22½	19	21	18½	19	19		17½	18¼	18¾	23	23¼	24	22½	23	21	24½	24	24½	18	24½	13¾	20	106
107	27.00	31.50	29.50	35.50	26.50	29.75	24.50	26.50	22.00	24.75	23.75	25.00	26.25	28.00	20.50	23.50	27.00		22.75	27.25	25.00	27.50	20.50	27.00	17.25	21.25	15.75	17.00	107
108	26.25	28.00	19.25	28.00	19.25	21.75	19.00	20.25	17.25	20.00	19.50	22.00	20.25	24.75	20.00	23.00	22.00	28.00	23.50	26.35	25.00	26.36	16.00	27.50	16.00	19.50	17.25	19.00	108
109	35		45		28	45	25		20	35	20		20		20	25	25		25	33	32	33	42	36	30	36	32		109
110	13		13		7	13	7		7		7		7		7		7		7		7		7		7		7		110
111	4¾	6	6		6		6		6		6		5	6	5		4	5	4		4		3¾	4	2¾	3½	3½		111
112	1⅝	2½	1⅝		1⅝	1⅝	1⅝		1½		1½		1½		1½		1½		1½		1½		1¼	1½	1½		1¼		112
113	15½	15½	15	16½	15	16½	15	16	17		18¾		20		12½	20

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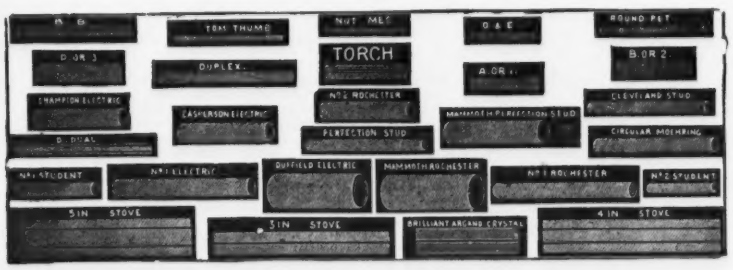

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